PHASE I: INITIAL STATE LEVEL WORK

1. State Application Process

The NPDC developed a process to assist potential states in deciding if an application for a two-year partnership with NPDC was feasible. The application packet, which is posted on the NPDC website nine months before the application is due, includes a comprehensive list of professional development and other responsibilities that are entailed in the partnership. Descriptions of the training, technical assistance/coaching, and financial resources that the NPDC will provide, as well as the states’ requirements to commit resources - including a state liaison, time of other state leaders and stakeholders, and financial resources associated with NPDC activities - are described. All states form a collaborative leadership team that includes a Department of Education Part B representative, Part C office representative, and a representative of the University Center for Excellence in Developmental Disabilities. Representatives from other groups including parents, advocacy organizations, parent training centers, higher education faculty, and health care professionals may serve as members of the state’s leadership team. This team decides if the state has the infrastructure needed to meet the participation requirements of partnership with the NPDC. The leadership team then develops the application. A copy of the NPDC’s state application guideline is provided as a resource.

2. Identify Partner States

Upon receipt, each application is reviewed by a team external to the NPDC and rated along criteria developed by the center. These ratings and comments are reviewed by the principal investigators of the NPDC, and three highly rated applications are selected and invited to work with the NPDC for two years. Each state is paired with one of the three partnering university sites (University of North Carolina- Chapel Hill; University of Wisconsin- Madison; University of California-Davister) that make up the NPDC. A copy of the application reviewer scoring form is provided in the resources section.

3. Initial Contact Made with State Liaison

An important initial step is that contact is made with the selected state’s liaison by NPDC staff members. During this and subsequent phone calls, the two-year flow of activities is discussed (a copy of the flow diagram is provided in the resource section). Initially, details of the partnership are developed and a date and place for the Interagency Autism Planning Group meeting is discussed. The state liaison is the coordinating person for this meeting and as such will plan the logistics of the meeting with the Leadership Team and invite stakeholders within the state to participate. Invitation letters are sent out to a list of attendees. The agenda for this meeting is
4. Assemble State Stakeholders for Interagency Autism Planning Group (IAPG) Meeting

A state’s Interagency Autism Planning Group (IAPG), whose primary task is to identify how the requirements of the NPDC will be meaningfully integrated into the existing infrastructure and activities of each state, is critical to shaping the NPDC partnership. Initial IAPG meetings occur within six months of the state’s acceptance of the offer to participate. In some states this IAPG has been integrated or grown out of an already existing group. In other states, the IAPG has created the opportunity to bring together a group of key stakeholders for the first time around their common interests in improving their state’s capacity for serving children with ASD and their families. Typically, members of the state leadership team, members of the state’s training and technical assistance autism network, and representatives from local school districts are included. Parents and individuals with ASD contribute to the IAPG work.

In most states, the NPDC convenes the IAPG for a one or two-day, face-to-face meeting to create a strategic plan, solidify members of the autism training team, and identify priorities for the selection of model sites if they have not already been selected. The strategic plan becomes the work plan for how the NPDC and the state will engage over the two year partnership. The plan details how the NPDC activities will be implemented within each state, including timelines and who will work on the planned activities. While each state started this process in their written application, the IAPG meeting provides a forum for bringing participants to a common understanding of the commitments entailed in an NPDC partnership. These discussions often result in the identification of many strengths, but also gaps.

An important consideration within each strategic plan is the sustainability of activities that are undertaken through the NPDC partnership. Some states have a clear idea of how the NPDC will contribute to the professional development system in their state while others let that emerge. States establish priorities to strengthen their autism training and technical assistance networks that may include (1) embedding evidence-based practices into the state’s ongoing professional development, including summer institutes; (2) developing more networking opportunities among training and technical assistance providers; (3) using more coaching and consultation processes; and (4) increasing partnerships between training and technical assistance providers and higher education faculty.

Strategies for ongoing communication to help a state stay on target with the IAPG commitments in the strategic plan include periodic meetings, tele- and web- conferences, and e-mail updates between the NPDC and state leadership staff. Each state’s initial strategic plan is reviewed by the IAPG in one year and may be modified.
MANUAL OF PROCEDURES (MOP)

Descriptions

Copies of the following are included in resources: PowerPoint presentation: Overview of the NPDC; a sample IAPG agenda, a sample strategic plan. These samples are for illustrative purposes and only represent one state’s approach. The sample IAPG agenda and state strategic plan vary among states.

5. Identify Model Sites Within States

Potential sites within states are confirmed either during the IAPG meeting or afterwards. Two to four sites are selected to serve as demonstration sites of the NPDC model during the first year of work. One goal for these sites is to select and implement evidence-based practices (EBP) based on the needs of children and youth with ASD, implement these practices with fidelity, and monitor progress, all within a quality program. Model sites are developed during the first year of work with the NPDC. They become resources within states that implement EBP for children and youth with ASD within quality programs and can serve as locations for others to visit to learn about the strategies that have been used in inclusive and self-contained environments. All this begins by selecting sites, putting technical assistance and coaching structures in place, and completing an initial program of professional development.

Minimum criteria are established for model sites. Each model site must have administrative support from the school’s principal and district superintendent and must have a team of 4-6 practitioners and teachers who work with students with ASD. In addition, model site team members must:

- be willing to receive and act upon monthly on-site coaching,
- join in regular telephone conferences to focus on changes being implemented,
- be willing to be learning sites and be observed by visitors,
- collect data on student, teacher, and family outcomes,
- complete an array of professional development activities (online course, summer institute, EBP modules), and
- implement evidence-based practices that address priority goals of at least three students with ASD in self-contained and/or inclusive educational programs.

A document that outlines many of the expectations for model sites is shared and discussed with administrative and team members prior to signing a team/site agreement. By clearly defining these expectations, potential sites are informed about the specifics of their roles and responsibilities before agreeing to become a model site. These guidelines have become a useful resource in each state as model sites are identified. Copies of both documents are available as resources.
PHASE II: INITIAL SITE WORK

6. Consent Forms Made Available

Consent forms to participate in the Center’s work are developed by each NPDC university site in accordance with their Institutional Review Board (IRB) procedures. The IRB reviews procedures, including informed consent, for subject (team and family members) participation in the project. A variety of informed consents are developed and shared with the state. These include parent consent to participate, team member consent to participate, student assent to participate (over age 11), and audio/visual or media consents to use pictures/videos for training. A sample media release consent can be reviewed in the resource section.

7. Collection of Evidence-Based Practice Inventory from Model Site Team Members

Prior to taking the Online Course, autism training team members complete a brief inventory regarding their use and knowledge of the 24 EBPs. The purpose of the inventory is to provide the NPDC and state team with relevant information for planning the summer institute. For example, if many of the training team members in the state express an interest in learning more about video modeling, then this might be a topic covered in the intensive summer training. The survey is also used to gauge the use and implementation of the EBP by educators working with the NPDC project. This inventory is presented and collected to training team members through an online survey, but a PDF version of the document is available in the resource section.

8. Model Site Teams Take Online Course – Foundations of Autism Spectrum Disorders

Professional development begins for all model sites and technical assistance personnel with the completion of an online course entitled Foundations of Autism Spectrum Disorders. The eight sessions of the course cover content on characteristics of ASD, screening and assessment of ASD, factors affecting learning and development, and promoting positive and reducing interfering behaviors among others. All model site team members and technical assistance providers are required to complete the course prior to initiating work with the NPDC in classroom settings. Both pre and post assessments are built into each session of the course to help individuals track their own learning of the content. Text-based versions of the session content are available for download on the NPDC website: http://autismpdc.fpg.unc.edu.

9. Identification of Target Students at Each Model Site

A minimum of three target students with ASD are selected from each site. It is recommended that the selection of target students consider diversity, level of family involvement and access, and knowledge about the family’s stability for the year of participation.
10. Pre-APERS Completed at Model Sites

Overall program quality is measured using the *Autism Program Environmental Rating Scale* (APERS). Increasing quality of instruction in a classroom, a major goal of the NPDC project, assumes there is a procedure for evaluating quality of instruction. However, there were no such procedures available when the NPDC began. An instrument developed for this purpose, the *Autism Program Environment Rating Scale* (APERS), measures features of programs that reflect program quality, such as program structure, social climate, team functioning, communication, and family involvement.

The APERS can be used to rate both inclusive and self-contained programs for learners with ASD at the preschool, elementary, middle, and high school levels. The NPDC uses the APERS to measure baseline program quality at the beginning of the academic year (early in the fall) or toward the end of the previous academic year (late in the spring).

The current versions of the instrument include 64 and 68 items, respectively, for the APERS-PE (preschool/elementary) and the APERS-MHS (middle/high school). Individual items are organized into subdomains (see the APERS resources section), and each item is scored on a five-point scale. Individuals completing the APERS observe in the program (a minimum of 3 hours of observation is required) and conduct interviews with the teachers, team members, and parents of children with ASD in the classroom. There is also a self-assessment tool that teachers complete on their own, which is then scored and shared with the team.

After the APERS is administered, an APERS report is generated that communicates the overall results. This report has two major features: a graphic summary of the results that illustrates the relative strengths and weaknesses in a given program, and a narrative highlighting the qualitative nature of program strengths and specific suggestions for improving weaknesses. Two different graphic summaries are used by the NPDC to convey results. One displays domain scores, while the other provides a more detailed graphic display of individual item scores by domains (see the resources section for sample APERS report and graphics). With the help of technical assistance providers, teachers and team members work to build on strengths and address weaknesses using the suggestions from the report.

The instrument is still in its pilot phase. Validity studies have not been conducted and psychometric properties have not yet been established through research, although the research team hopes to begin such a process soon. In the meantime, the APERS assists teachers and technical assistance providers to evaluate current classroom practices and identify goals for increasing program quality at model sites. See the resources section for information on what is required to be trained to use the APERS.
PHASE III: MULTI-SITE/PROGRAM TRAINING

11. Summer Institute

The summer institute, completed in the first year, is a four to five day training that is developed by the NPDC with the state leadership and hosted in the partner state by the NPDC. The summer institute brings together all model site team members, local and state technical assistance providers, and state leadership to learn about the NPDC model and to plan specific activities for model sites and target students in the fall. An additional benefit is that all attendees have the opportunity to plan and learn together, meeting other model site team members and TA providers, often for the first time. During the second year, the state leadership takes the lead in planning and coordinating the summer institute with support from the NPDC.

The goals of the summer institute include providing an overview of the NPDC project and the processes involved (including the APERS, GAS and EBP resources), an introduction to EBP, coaching, team building, and involving families. A list of summer institute outcomes is included in the resources section, along with sample agendas for the training.

PHASE IV: EBPS FOR STUDENTS

12. Goal Attainment Scaling (GAS)

Individual learner performance is measured using goal attainment scaling (GAS). As used by the NPDC, goal attainment scaling (GAS) is a system for assessing the amount of progress that learners with ASD make on select goals over an academic year. First, teachers, related service professionals, and family members work together to select three priority goals from the learner’s Individualized Education Program (IEP) or Individualized Family Service Plan (IFSP). It is critical to the scaling process that the selected goals are observable and measurable. If not, they need to be revised. Next, a five-point scale is developed to quantify progress on each selected goal. The lowest point on this scale, ‘much less than expected’, describes the learner’s present level of performance at the beginning of the academic year. The second point, ‘somewhat less than expected’, describes a benchmark between the present level of performance and the annual goal described in the IEP. The third point, ‘expected level of outcome’, describes the progress expected to be made by the end of the academic year, as described by the selected annual goal from the IEP. The fourth and fifth points on the scale, ‘somewhat more than expected’ and ‘much more than expected’ describe learner performance that goes above and beyond the level of performance described in the IEP goal or IFSP outcome.

At regular points throughout the academic year, learner progress is gauged using the GAS, and a point is selected at the end of the academic year that best describes the learner’s level of performance for a given goal. This final rating summarizes the learner’s progress relative to the
expected annual outcome. Thinking in terms of GAS gives educational teams a framework to work with families to select priority goals, identify appropriate expectations for a learner, and to closely monitor learner outcomes. Please see the resources sections for a GAS powerpoint presentation, GAS procedures form, and a GAS template.

13. Determine Targeted EBP

Identifying and selecting the most appropriate evidence-based practices for the learning goals of an individual learner is an important step in the instructional process. This decision is based on a number of factors including the evidence-based practices available, consideration of the individual learner, and preferences of the team of professionals who will be implementing the practices.

The Age and Domain graph included in the resources section identifies the 24 evidence based practices by which domains of instruction and age groups were targeted in the research. While this format provides professionals with information on what practices may be most useful in targeting certain skills, it is not meant to be restrictive.

The NPDC sometimes encourages teams to identify a single EBP to use with an individual goal. This is especially helpful for teams who are hesitant about the process and/or less confident in their teaching skills. However, few practices are ever really used in isolation. Prompting and reinforcement, for example, are used in almost all of the other practices. Task analysis, too, is used prior to teaching skills through video modeling, visual supports, etc. Teams are encouraged, through coaching and mentoring, to explore the overlap of practices. For example, video modeling can be used to teach a self-management system. A social narrative can be written to explain the routine of a social skills training group. A speech generating device may be used by a learner in the context of a peer-mediated intervention. The understanding required to use practices concurrently, while still being mindful of fidelity of implementation, is an important component in the development of skillful teachers and practitioners.

Not all students are alike, which is why experienced educators know that no single teaching practice will work for all students. The value in having a list of identified evidence-based focused interventions is that the characteristics of individual learners can be the foremost consideration when selecting practices for instruction. There are four areas for consideration when identifying EBP for individual students, including: 1) learning style, 2) temperament, 3) interest and motivators, and 4) history of what has and has not worked.

Combining scientific understanding with professional wisdom has always been considered best instructional practice. Teachers and other practitioners are encouraged to look at their own strengths and interests in the selection of EBP. Technology-minded professionals may be interested in exploring the use of video modeling; other professionals may be more inclined to initiate a parent-implemented intervention. Environmental factors also may influence the
selection of EBP. For example, if a classroom is already set up as a structured teaching environment, then structured work systems may be an obvious place to start. If a student is to be served in an inclusive preschool setting, naturalistic interventions may be most appropriate. The NPDC encourages practitioners to build on strengths and interests, but also cautions that not every EBP will work for every learner.

14. Baseline Data Collected

Several different types of baseline data are collected in early fall of the year of the partnership and/or the spring and summer prior to the partnership year. Because data collection procedures are more complicated for administration of the APERS and Goal Attainment Scaling, these timelines are addressed under each of these sections and not here.

Samples of other instruments that collect baseline and ending data can be found in the resources section. These other instruments are briefly described below:

Target Student EBP Checklist: This is a list of the 24 EBP, and teachers are asked to identify which practices were currently being used with each target student. They are told not to report only on practices being used to fidelity, but any practice that is being used with the student.

Baseline Implementation Checklists: Coaches fill out a baseline implementation checklist for any practice that is targeted by a team. If it is a practice that the team is already using, the checklist is filled out based on observations of implementation. If the team has not yet used the practice, the checklist is filled out with all “zeros” for baseline.

Family Demographic Survey: This survey provides the project with information related to the targeted students and their families.

Family Program Questionnaire: This survey provides the project with information about the family’s overall satisfaction with their child’s education program.

Both the Family Demographic Survey and the Family Program Questionnaire are usually given to the families by the learner’s teacher, and then mailed back to the partnering NPDC site in a provided and pre-paid envelope.

PHASE V: COACHING AND TA

15. Coaching of Model Site Teams

The National Professional Development Center (NPDC) on Autism Spectrum Disorders is committed to the use of coaching to meet the Center goals to provide state partners with sustainable, outcome-based professional development and technical assistance that optimize existing resources for effective delivery of services to learners with autism spectrum disorder (ASD). This includes applications in school and early intervention settings.
Coaching is a key ingredient for the successful implementation of evidence based practices. Coaching helps educators make informed decisions about instruction and program organization that will lead to intervention practices that help children and youth learn more effectively. Coaching is relationship-based and is developed within the cultural context of organizations (Fixsen et al., 2009; Joyce & Showers, 2005; Knight, 2007).

Complete information on the coaching practices used by the NPDC can be found in our Coaching Manual, found in the resources section. Data regarding coaching and technical assistance is recorded on a coaching log and TA contact form, which is also included.

16. NPDC Support of Coaches

NPDC staff members support coaches through monthly phone calls. These phone calls are used as opportunities to check-in with the coach regarding data collection, to problem solve around implementation of EBP and classroom management, and to touch base about what the team is doing related to NPDC objectives. Reflective consultation is sometimes used to structure these contacts, and more information can be found in the Coaching Manual. Additional resources include the TA contact form, a sample data tracking sheet, and a sample agenda for a monthly phone call.

17. Mid-Year Visits

Typically, mid-way through the first year, NPDC staff members make an on-site visit to model site teams. One of the benefits to this visit is the NPDC’s ability to let the teams drive the agenda for the time. Rather than other visits, which require APERS completion and/or other data processes, this visit allows teams to determine what they want to happen. Activities include observations of teaching, facilitated team meetings, communications with administration, and trainings of other school personnel. Mid-year visits typically last approximately one school day.

PHASE VI: PLANNING FOR SECOND YEAR

18. Contact with State Leadership

Throughout the first year, NPDC staff is in contact with the state leadership team. Specifically, at the mid-year point, conversations regarding expansion and the Year 2 summer institute occur. Some states choose to bring the Interagency Autism Planning Group together again, and some states choose to work with a few key leadership players. NPDC staff members attend meetings both on-site and/or remotely.

19. Identification of Expansion Sites

As mentioned above, discussions about identifying expansion sites takes place within the state leadership team during the interagency planning group meetings. States often use their
experiences working in year one model sites when considering what sites to include as expansion sites. State partners use different strategies for expanding the NPDC model. For example, some states may expand within districts by including a second school that was not a first year model site. Other states may choose expansion sites based on the age range of the students. For example, if first year sites are preschool and elementary states, may choose to expand to middle and high schools. Regardless of the approach used by state partners, the identification of expansion sites is an important step in the NPDC process as states move from year one to year two activities.

PHASE VII: END OF YEAR DATA COLLECTION

20. Post-APERS Completed at Initial Model Sites

The APERS is administered at the end of the academic year at each model site by the NPDC team or trained TA providers from the state. Following the observation, a post-APERS report summary is prepared and shared with the model site team. The report includes graphs that show change for pre and post APERS observations for each domain and sub-domain. The model site team meets with the NPDC contact person and TA providers to discuss the findings and review the progress made throughout the year. The team may also want to select certain areas of growth to focus their team’s professional development for the following academic year. A sample post-APERS report is included in the resources section.

21. End of year data are collected

All of the data collected at the beginning the year (i.e., baseline data) are gathered at the end of the school year at each of the model sites (i.e., post-data). The only exception is the Family Demographic Survey, which is collected at baseline. Samples of these data collection measures are included in this manual of procedures under the relevant timeline section resources. The end of the year data collection measures are:

GAS – TA providers report the GAS level that each target student reached on their targeted goals. These goals are monitored throughout the year and a final end of the year progress level is reported. (See above for a complete description of the GAS.)

Target Student EBP Checklist: This is a list of the 24 EBP. Teachers are asked to identify which practices are being used with each target student at the end of the year. They are told not to report only on practices being used to fidelity, but any practice that is being used with the student.

End of the year Implementation Checklists: Coaches complete an end of the year implementation checklist for the practices the team selected to use with the target students. Multiple observations are made during the year and a final observation point is used to determine the end of the year implementation level for each EBP.
Family Program Questionnaire: This survey provides information about the family’s overall satisfaction with their child’s education program.
In Year Two of the state partnerships, additional school sites are identified. These sites complete the same cycle of activities as the initial model sites; however, the state takes a more active role in carrying out the components of the process. For example, state technical assistance providers administer the APERS in expansion sites, with support from their NPDC team members provided as necessary. During Year Two, the expansion site teams benefit from hearing about the experiences of Year One teams (e.g., during the summer institute). Team members from the first year sites are often actively involved in presenting at the summer institute and sharing their first-hand experiences of implementing EBP in classrooms. By having local TAs and coaches more actively involved in the second year, the process is sustainable and continues to build momentum, even after direct NPDC support is no longer provided.

Beginning with identification of expansion sites, the same timeline is followed as was with initial model sites, including the following activities:

- Consent forms are completed
- Evidence-based Practice Inventory is completed prior to starting the online course
- Team members take online course
- Target students are identified
- Pre-APERS is completed
- Summer Institute is planned and offered by state team
- Goal Attainment Scaling is done on priority student goals
- Targeted EBP for each team are determined
- Baseline data are collected
- Coaching structure and personnel support expansion teams
- NPDC supports coaches through monthly calls
- NPDC mid-year visits are scheduled if needed
- Post APERS is completed
- End-of-year data are collected

Differences between Year 1 and Year 2 include:

- State-level staff typically complete APERS
- State carries responsibility of funding the summer institute
- NPDC mid-year onsite visits typically do not occur unless requested
- State leadership team focuses on developing plans for sustainability and expansion after state’s partnership with the NPDC ends