

## Research Design for Arkansas Early Childhood Professional Development System

<b>Registry</b>				
Research Questions		Indicator/ Instrumentation	Methodology	Implications for Policy and Practice
General Research Question(s):	Specific Research Question(s):			
To what extent do the AECPDS Registries meet the standards of model registries within the ECE field?	<ul style="list-style-type: none"> <li>▪ Does the AECPDS Practitioner Registry engage in “best practices” in their design and implementation of the training registry structure and processes?</li> <li>▪ Does the AECPDS Trainer Registry engage in “best practices” in their design and implementation of the trainer registry structure and processes?</li> <li>▪ Does the AECPDS Training Registry engage in “best practices” in their design and implementation of the training registry structure and processes?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Standards of model ECE registries</b> will be drawn from the National Registry Alliance’s set of best practices for Practitioner and Trainer Registries. Standards for model Training Registries will be developed based on literature review and/or information from NCCIC. These sets of standards will be used to develop an assessment tool, which will indicate any gaps between established best practices and the current practice of the AECPDS Registries.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Compare the AECPDS registries’ structures and processes (as determined via policy and procedure manuals and interviews with key informants) with a set of “best practices” for Practitioner, Trainer, and Training Registries.</li> <li>▪ Develop process flow maps for a select set of operational processes for the AECPDS registries (as determined via policy and procedure manuals and interviews with key informants), and analyze these processes to determine if they can be streamlined and made more effective.</li> </ul>	<ul style="list-style-type: none"> <li>▪ These data will help to identify any gaps between the standards for “best practice” and the current practices of the AECPDS registries. Knowing these gaps will provide guidance to the AECPDS Steering Committee with respect to improvements that need to be made.</li> <li>▪ The results of the process flow mapping will provide a level of detail to ensure that the operational processes are both streamlined and effective. Process flow mapping can lead to more balanced work flow processes and help to identify activities and costs where there is no “value added,” which ultimately provides opportunities for cost savings and more effective outcomes.</li> </ul>
What is the level of satisfaction of practitioners and trainers with the structure and processes of the AECPDS Registries?	<ul style="list-style-type: none"> <li>▪ How satisfied are practitioners with the specific structural components and operational procedures of the <i>Practitioner Registry</i>?</li> <li>▪ How satisfied are practitioners and trainers with the specific structural components and operational procedures with the <i>Training Registry</i>?</li> <li>▪ How satisfied are trainers with the specific structural components and operational procedures with the <i>Trainer Registry</i>?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Level of satisfaction with AECPDS Registries</b> will be measured through a questionnaire for practitioners and trainers (i.e., delineate all the structural components and operational processes of the appropriate AECPDS Registry, using existing documents and key informant interviews to develop this questionnaire). Respondents will rate each element on a scale, such as “excellent, good, fair, poor” or “very satisfied....not at all satisfied.”</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randomly select a sample of practitioners within the AECPDS Practitioner Registry (number to be determined based on level of detail wanted in the reporting for subgroups of practitioners, such as private vs. faith-based, profit vs. nonprofit, etc.) and trainers (entire population of AECPDS trainers) and administer a questionnaire to determine their level of satisfaction with the structural components and operational procedures for the AECPDS Registries.</li> </ul>	<ul style="list-style-type: none"> <li>▪ These “satisfaction” data from both practitioners and trainers will be helpful in identifying any need for quality improvements with respect to the structure and processes of the AECPDS Registries.</li> </ul>

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## Registry

Research Questions		Indicator/ Instrumentation	Methodology	Implications for Policy and Practice
<p>To what extent do practitioners use the Training Registry to find out about professional development opportunities?</p>	<ul style="list-style-type: none"> <li>▪ How frequently do practitioners use the Training Registry to find out about professional development opportunities?</li> <li>▪ Do practitioners utilize other mechanisms to find out about training opportunities?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Use of Training Registry</b> will be measured through a set of closed-ended questions for practitioners within the Practitioner Registry (questions to be included on the above mentioned Practitioner Questionnaire about 1) source of information used by practitioners to find out about professional development opportunities, 2) how frequently they use each source, and 3) their satisfaction with the source of information (e.g., ease of use, sufficient information, etc.)</li> <li>▪ <b>Use of Training Registry</b> will be measured for practitioners that are not in the Practitioner Registry through a set of focus group questions similar to those above.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randomly select a sample of practitioners (same group as above) and ask a set of questions to determine how practitioners find out about professional development opportunities and why they use the methods that they do.</li> <li>▪ Conduct focus groups of practitioners not in the Practitioner Registry in 4 regions within Arkansas to solicit their input regarding professional development opportunities. Each group will include approximately 8-10 practitioners and some groups will be center-based, and other will be home-based practitioners; as well, groups will differ by urban vs. rural areas within Arkansas. The practitioners who are not in the Practitioner Registry will be identified with the help of Licensing Unit and then contacted with the invitation to participate in the focus group.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Data from both practitioners who currently use the AECPDS Training Registry vs. those who do not will provide insight into what works vs. what doesn't work with respect to making practitioners aware of professional development opportunities and making sure that the AECPDS structure and processes are "user friendly." These data will be helpful in making decisions about quality improvements within AECPDS Registries.</li> </ul>

SPECTRUM		Indicators/ Instrumentation	Methodology	Implications for Policy and Practice
Research Questions				
General Research Question(s):	Specific Research Question(s):			
Does the SPECTRUM provide a useful roadmap for practitioners to advance as an ECE professional?	<ul style="list-style-type: none"> <li>▪ To what extent do ECE practitioners understand and use the SPECTRUM to plan for their professional growth and development?</li> <li>▪ To what extent are the professional development opportunities listed on the SPECTRUM available to ECE practitioners throughout Arkansas?</li> <li>▪ What is the quality of the career lattice as detailed in the SPECTRUM? Specifically: Are there training programs that are duplicates? Do the training programs, as a whole, provide comprehensive coverage of AECPPDS core competencies?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Practitioner understanding of the SPECTRUM</b> will be measured through a questionnaire for practitioners (i.e., develop the specific closed-ended and/or open-ended question(s) to include on the above mentioned Practitioner Questionnaire about practitioner understanding of the SPECTRUM and their use of it.</li> <li>▪ <b>Availability of PD opportunities listed on the SPECTRUM</b> will be measured via existing documents/records from AECPPDS Training Registry (i.e., create reports from the Training Registry database (FY 03/04 and FY 04/05) that show the frequency of delivery of the various training programs and their location within the state).</li> <li>▪ <b>Quality of the career lattice specified in the SPECTRUM</b> will be measured by determining if any of the training programs identified are duplicates of one another and if the training programs provide comprehensive coverage of the AECPPDS core competencies.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randomly select a sample of practitioners (same group as above) and ask a set of questions to determine the extent to which practitioners understand the SPECTRUM and if they use it to plan their professional growth and development.</li> <li>▪ Utilize existing Training Registry data over the past 2 years to determine both the frequency and location of Arkansas training programs made available and compare this to a set of benchmarks for both frequency and location.</li> <li>▪ Utilize the existing set of AECPPDS core competencies and create crosswalks with the learning objectives/outcomes for each of the training programs identified on the SPECTRUM.</li> </ul>	<ul style="list-style-type: none"> <li>▪ As with the other practitioner data, the analysis of practitioner understanding of the SPECTRUM can be used to determine if it provides a useful roadmap for practitioners and whether there is a need for quality improvements.</li> <li>▪ These data can be used to determine if the delivery of training (i.e., its frequency and location) is as expected or if it needs to be modified match with those expectations. (What is expected is not yet delineated by DCCECE, therefore the analysis will present the existing distribution of training, while the implications of this will be determined by the AECPPDS Steering Committee.)</li> <li>▪ The crosswalks will point to duplication of training programs and/or gaps in coverage of the AECPPDS core competencies, which will provide the necessary information to make modifications in the curriculum materials.</li> </ul>

## CDA/Apprenticeship & Other Training Programs

<p>What difference have the AEC PDS training programs made in the quality of ECE programs in the state?</p> <p>The list of training programs will be provided by DCCECE.</p>	<ul style="list-style-type: none"> <li>▪ What number and percentage of practitioners enrolled in these training programs complete their program (for CDAs, this includes earning the CDA credential)?</li> <li>▪ What number and percentage of practitioners enrolled in these training programs are still in the ECE field one year after their completion of the training program?</li> <li>▪ What number and percentage of practitioners enrolled in these training programs go on to subsequent training on the career lattice upon completion?</li> </ul>	<p>The <b>quality of ECE programs</b> in the state is indicated by:</p> <ul style="list-style-type: none"> <li>▪ The number and percentage of practitioners that completed the AEC PDS training programs (e.g., the CDA and Apprenticeship programs and other training programs, as identified by the DCCECE).</li> <li>▪ The number and percentage of practitioners that were retained in the field one year after completion of one of the AEC PDS training programs.</li> <li>▪ The number and percentage of practitioners that enrolled in subsequent training/education on the career lattice after completing one of the AEC PDS training programs.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Utilize existing training program data to identify practitioners that enrolled in these programs over the two fiscal years (FY 04/05 and FY 05/06)*.</li> <li>▪ Utilize existing training program data to identify practitioners that completed these programs, stayed within the field, and/or went on to pursue subsequent training on the career lattice. Note: if these data are unavailable, then follow-up telephone calls to a sample of these practitioners will be made to determine completion, retention, and pursuit of subsequent training.</li> </ul> <p>* Depending on the point of data collection, this research may not include all of the data from FY 05/06.</p>	<ul style="list-style-type: none"> <li>▪ These “outcome” data for each of the AEC PDS training programs provides a comparative analysis of the programs, and assesses if some programs are more “successful” than others in having practitioners complete the training, stay in the field, and move on to higher levels in the career lattice. If some programs are not as successful, then decisions can be made with respect to the “next steps” that AEC PDS will want to take with these programs.</li> </ul>
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## Providers of Professional Development Opportunities

Research Questions		Indicators/ Instrumentation	Methodology	Implications for Policy and Practice
General Research Question(s):	Specific Research Question(s):			
Do the professional development opportunities offered through AECPDS training providers match with the PD needs of practitioners?	<ul style="list-style-type: none"> <li>▪ To what extent do the AECPDS professional development opportunities offered represent an estimated need for training with respect to the proportion of practitioners serving particular age groups?</li> <li>▪ To what extent do the AECPDS professional development opportunities offered represent an estimated need for training with respect to the proportion of practitioners at different levels within the SPECTRUM?</li> <li>▪ To what extent do the AECPDS professional development opportunities offered represent an estimated need for training with respect to the proportion of practitioners within different delivery service areas within Arkansas?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Characteristics of the PD opportunities</b> include a) focus of content related to age of child; b) level of content per the SPECTRUM levels; c) location per the Arkansas eight service delivery areas.</li> <li>▪ Indicators for <b>PD needs of providers</b> include: a) PD content appropriate for the age of children served; b) PD content appropriate for the level of a practitioner within the SPECTRUM; and c) PD content delivered in the appropriate locations throughout Arkansas, based on the number of practitioners within an area with characteristics a) and b) above</li> </ul>	<ul style="list-style-type: none"> <li>▪ Utilize existing Training Registry data over FY 03/04 and FY 04/05 to determine a number of the characteristics of the PD opportunities offered (e.g., general vs. specific to age of child; level per the SPECTRUM; location within service delivery areas).</li> <li>▪ Utilize existing licensing or Practitioner Registry data to determine a number of characteristics of practitioners (e.g., number serving particular age groups, number at each level within the SPECTRUM, and number within delivery service areas within Arkansas).</li> <li>▪ Compare these two sets of data to determine if the delivery of PD opportunities matches proportionately with the characteristics of the practitioners.</li> </ul>	<ul style="list-style-type: none"> <li>▪ A comparison of these two reports can provide information about how well the PD offered matches with the needs of practitioners. If it doesn't match, then these data will provide direction with respect to the changes that need to be made.</li> </ul>
How effective is the system that evaluates the quality of training/professional development opportunities offered?	<ul style="list-style-type: none"> <li>▪ Is there a system for measuring "practitioner satisfaction" with training/PD opportunities in place? And if so, how does this system operate and how are the results of the satisfaction data use?</li> <li>▪ Is there a system of "peer review" of training/PD opportunities in place, and if so, how does this system operate and how are the results used?</li> </ul>	<ul style="list-style-type: none"> <li>▪ Indicators of the <b>Effectiveness of an evaluation system for assessing training quality</b> will be drawn from a literature review and an assessment tool developed to compare what exists with what represents standards for an effective trainer evaluation system.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Utilize existing documents and records from the providers of PD opportunities and key informant interviews to determine what systems exist for evaluating the quality of training/PD offered.</li> <li>▪ Compare the systems that exist with a set of standards for quality training evaluation systems (developed via literature review on training evaluation) to determine the gap between what exists vs. what meets the standards.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Information about the gaps that exist between the existing training/PD evaluation system and the model standards for such a system, will provide a set of guidelines for what needs to be established as a method for evaluating training quality.</li> </ul>

Practitioners				
Research Questions		Indicators/ Instrumentation	Methodology	Implications for Policy and Practice
General Research Question(s):	Specific Research Question(s):			
What factors influence the choices that practitioners make when selecting PD offerings?	<ul style="list-style-type: none"> <li>▪ How important do practitioners consider the following factors when they select PD opportunities?               <ol style="list-style-type: none"> <li>1. Specific core competency area</li> <li>2. Variety of core competency areas</li> <li>3. Recommendation of supervisor</li> <li>4. Date it is scheduled</li> <li>5. Location of training</li> <li>6. Trainer/Training organization</li> <li>7. Cost</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Importance of Factors Influencing PD Selection</b> will be measured through a practitioner questionnaire that identifies a number of factors that might influence practitioner selection of PD opportunities, which they rate on a scale of 1= not at all important to 5 = very important.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randomly select a sample of practitioners (same group as above) and ask the questions about the factors that influence their choice of PD opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>▪ These data will provide details on how practitioners make decisions about professional development opportunities. If decisions are not made in such a way that fosters their growth and development, then there will be a recognized need for identifying methods to make practitioners more aware of the reasons for professional development and how to better make decisions for themselves with respect to the PD</li> </ul>
What are the outcomes for practitioners who participate in AECPPDS? (Note: the questions about CDA/Apprenticeship and other training programs, above, overlap with this question about outcomes for practitioners)	<ul style="list-style-type: none"> <li>▪ What is the completion rate for training programs funded by AECPPDS</li> <li>▪ What is the retention rate for practitioners that complete AECPPDS-funded training programs?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Completion Rate</b> is indicated by the number and percentage of practitioners that complete the AECPPDS training programs (e.g., the CDA and Apprenticeship programs, the Child Care Orientation training, etc.)..</li> <li>▪ <b>Retention Rate</b> is indicated by the number and percentage of practitioners that were retained in the field one year after completion of one of the AECPPDS training programs.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Utilize existing training program data to identify practitioners that enrolled in these programs over the past two fiscal years (FY 04/05 and FY 05/06)*.</li> <li>▪ Utilize existing training program data to identify practitioners that completed these programs and stayed within the field, Note: if these data are unavailable, then follow -up telephone calls to a sample of these practitioners will be made to determine completion and retention rates.</li> </ul> <p>*Depending on the point of data collection, this research may not include all of the data from FY 05/06.</p>	<ul style="list-style-type: none"> <li>▪ See Implications for Policy and Practice as specified for the CDA/Apprenticeship and Other AECPPDS Training Programs.</li> </ul>

## ▪ Directors/Owners

<p>What role do Directors/Owners play in AECPDS?</p>	<ul style="list-style-type: none"> <li>▪ What is the rate of participation of Directors/Owners within the AECPDS Registry?</li> <li>▪ If Directors are in the AECPDS Registry, do their staff complete more training than those staff whose Directors are not in the Registry?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Director Participation in Registry</b> is indicated by the number and percentage of Practitioner Registry members that are Directors/Owners.</li> <li>▪ <b>Director Influence on Staff PD</b> is indicated by the average hours of training completed (within a year) by staff within a center where the Director is in the Practitioner Registry.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Utilize the Practitioner Registry data to run reports that will show the number of Directors/Owners in the Registry for each F"Y 03/04 and 04/05; and the average number of training hours of staff within centers where the Director is in the Registry vs where the Director is not in the Registry.*</li> </ul> <p>*Based on discussion, Sept 2005, the training data for staff with Directors in the Registry vs. staff without Directors in the Registry is not currently available through the Registry database. Therefore this question cannot be answered at this point in time, but recommendations will be made regarding how to collect these data in the future.</p>	<ul style="list-style-type: none"> <li>▪ If there is clear evidence that practitioners complete more training when their Director/Owner is within the Practitioner Registry, then it may point to the need to focus outreach and recruitment efforts on Directors/Owners.</li> </ul>
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## Overall System

Research Questions		Indicator/ Instrumentation	Methodology	Implications for Policy and Practice
General Research Question(s):	Specific Research Question(s):			
Has AECPPDS made a difference in the way practitioners work with children and families?	<ul style="list-style-type: none"> <li>▪ What is the quality of care provided in ECE classrooms? Specifically: Is there a difference in the quality of care between ECE programs participating in AECPPDS vs. those that do not participate? How does the quality of care change over time?</li> <li>▪ What is the quality of ECE program administration? Specifically: Is there a difference in the program administration between ECE programs participating in AECPPDS vs. those who do not? How does the program administration change over time?</li> <li>▪ What is the quality of family partnerships provided in ECE programs? Specifically: Is there a difference in the quality of family partnerships between programs participating in AECPPDS vs. those that do not? How do family partnerships change over time?</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Classroom quality of care:</b> Environment Rating Scales (excluding the program structure and parent/staff subscales) (Harms, Clifford, &amp; Cryer, 1998) and the Arnett Scale (1989) that measures child-caregiver interaction.</li> <li>▪ <b>Quality of program administration:</b> Program Administration Scale (Talan and Jorde-Bloom, 2005)</li> <li>▪ <b>Family partnerships:</b> Family communication and family support and involvement: subscales within the Program Administration Scale</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randomly select two groups of ECE programs (sample size to be determined based on the desire to have information on different types of programs and/or different ages of children being served); one sample would be from the group of licensed programs participating in AECPPDS and the other from those not participating.</li> <li>▪ Conduct on-site data collection from these programs on the following:               <ul style="list-style-type: none"> <li>⇒ Program administration and family communication data from the overall program</li> <li>⇒ Classroom observation data from one or more classrooms (randomly selected) depending on how many age groups will be reported on</li> </ul> </li> <li>▪ For answering the questions about change over time, AECPPDS should set up a cycle (perhaps every 2-3 years) where another randomly selected group of ECE programs (both those participating vs. those not participating in AECPPDS) have the same data gathered, which can then be compared to the baseline data gathered in 2005-2006.</li> </ul>	<ul style="list-style-type: none"> <li>▪ These data, gathered over time, will enable AECPPDS and/or other stakeholders to see if there is a "return on investment" i.e., have the dollars spent on the professional development system resulted in expected outcomes regarding the quality of care for children and the quality of interaction/communication with families. If there doesn't appear to be a "return on investment," then steps will need to be taken to determine why there isn't and what steps need to be taken to ensure that the outcomes are achieved.</li> </ul>