

Data Management Plan Template

Study Information:

Title(s): Receipt of professional development and literacy outcomes in grades P–2 in Chicago Public Schools

Abstract: In its *Success Starts Here* vision statement, Chicago Public Schools (CPS) set a five-year goal that 65 percent of grade 2 students will be at or above national attainment for reading (Chicago Public Schools, 2019). Reaching this goal requires a better understanding of what types and dosages of professional support teachers require to improve their instruction and meet students’ needs. Reading instruction is the primary way to improve student reading, and teachers can improve their instructional practices with the right types and dosages of professional development. CPS launched the P–2 Balanced Literacy Initiative to spread best practices through professional development and coaching. This study will address research questions about the effectiveness of the professional development supports and the implementation of the professional development supports. By doing so, this study will provide district leaders with a better understanding of how to further improve professional development in the context of the P–2 Balanced Literacy Initiative.

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Data Sources:

The primary sample for this study is the 953 teachers working in the 112 schools participating in the P–2 Balanced Literacy Initiative and their approximately 24,000 students during the 2018/19 school year. In total, there are eight sources of data. CPS will provide four of the eight data sources, including implementation data on the P–2 Balanced Literacy Initiative, student scores on the Text Reading and Comprehension assessments, student administrative records, and teacher administrative records. The fifth source of data, school characteristics, will come from the Illinois State Board of Education’s school report cards. Finally, the sixth, seventh and eighth sources of data will come from interviews conducted by REL Midwest researchers with up to 9 district leaders, 9 instructional coaches, and 9 teachers working with priority schools. Table 1 lists each data source, data owner, year(s) of data, and variables.

Table 1. Study data sources

Name of Data Source	Owner/Publisher of the Data	Year(s)	Variable(s) Please include the variable name and brief definition
Implementation Data on P–2 Balanced Literacy Initiative	CPS	2018/19	Priority school teacher (1=Yes, in a priority school, 0=No, not in a priority school) Number of professional development cycles teacher attended (0=0 cycles, 1=1 cycle, 2=2 cycles, 3=3 cycles) Percentage of teachers in the school who attended 2 or more professional development cycles (continuous) Number of principal/lead administrator professional development cycles principal/lead administrator attended (0=0

			<p><i>cycles, 1=1 cycle, 2=2 cycles, 3=3 cycles)</i></p> <p>Teacher implementation of independent reading as rated by coaches in fall and spring, priority schools only (<i>1=not implementing, 2=beginning, 3=developing, 4=strong</i>)</p> <p>Teacher met end-of-year target for minutes students engage in independent reading as observed by coaches, priority schools only (<i>0=no, 1=yes</i>)</p>
Text Reading and Comprehension Assessment	CPS	Fall 2018, spring 2019	Text Reading and Comprehension assessment (<i>1=proficient, 2=not proficient</i>)
Student Administrative Records Data	CPS	2018/19	<p>Eligible for national school lunch program (<i>1=Yes, 0=No</i>)</p> <p>Asian (<i>1=Yes, 0=No</i>)</p> <p>Black (<i>1=Yes, 0=No</i>)</p> <p>Hispanic (<i>1=Yes, 0=No</i>)</p> <p>Native American (<i>1=Yes, 0=No</i>)</p> <p>Pacific Islander (<i>1=Yes, 0=No</i>)</p> <p>Multiple races (<i>1=Yes, 0=No</i>)</p> <p>White (<i>1=Yes, 0=No</i>)</p> <p>English learner student (<i>1=Yes, 0=No</i>)</p> <p>Gender (<i>1=Male, 0=Female</i>)</p> <p>Eligible for individualized education program (<i>1=Yes, 0=No</i>)</p> <p>Age (<i>continuous</i>)</p> <p>Grade level (<i>PreK, K, 1, 2</i>)</p>
Teacher Administrative Records Data	CPS	2018/19	<p>Asian (<i>1=Yes, 0=No</i>)</p> <p>Black (<i>1=Yes, 0=No</i>)</p> <p>Hispanic (<i>1=Yes, 0=No</i>)</p> <p>Native American (<i>1=Yes, 0=No</i>)</p> <p>Pacific Islander (<i>1=Yes, 0=No</i>)</p> <p>Multiple Races (<i>1=Yes, 0=No</i>)</p> <p>White (<i>1=Yes, 0=No</i>)</p> <p>Gender (<i>1=Male, 0=Female</i>)</p> <p>Certified to teach (<i>1=Yes, 0=No</i>)</p> <p>Years in district (<i>continuous</i>)</p>
State Report Card Data	Illinois State Board of Education	2018/19	<p>Percentage of students eligible for the national school lunch program (<i>continuous</i>)</p> <p>Percentage of students who have an individualized education program (<i>continuous</i>)</p> <p>Percentage of students who are English learner students (<i>continuous</i>)</p> <p>Percentage of students who are Asian (<i>continuous</i>)</p> <p>Percentage of students who are Black (<i>continuous</i>)</p> <p>Percentage of students who are Hispanic</p>

			<i>(continuous)</i> Percentage of students who are Native American <i>(continuous)</i> Percentage of students who are Pacific Islander <i>(continuous)</i> Percentage of students who are Multiple Races <i>(continuous)</i> Percentage of teachers who are Asian <i>(continuous)</i> Percentage of teachers who are Black <i>(continuous)</i> Percentage of teachers who are Hispanic <i>(continuous)</i> Percentage of teachers who are Native American <i>(continuous)</i> Percentage of teachers who are Pacific Islander <i>(continuous)</i> Percentage of teachers who are Multiple Races <i>(continuous)</i> Percentage of teachers who are White <i>(continuous)</i> Percentage of teachers certified to teach <i>(continuous)</i> Average number of years teachers have taught in district <i>(continuous)</i> Average grade 3 reading performance on the state test in 2015/16 <i>(continuous)</i>
Up to 9 interviews with district leaders	REL Midwest	2020	N/A
Nine interviews with instructional coaches	REL Midwest	2020	N/A
Nine interviews with teachers	REL Midwest	2020	N/A

Data Confidentiality Procedures:

REL Midwest researchers will follow protocols in place at the American Institutes for Research and the Education Development Center to manage all data. Data files will be transferred from CPS to project analysts on a secure data management website and will not include any personally identifiable information. All data files will be housed on a secure drive and system-level access control to electronic data shall be enforced using role-based authentication and Windows file permissions. System access to data will be terminated for voluntarily separated personnel as soon as possible; access for involuntarily separated personnel shall be revoked immediately (in coordination with Human Resources). The principal investigator, Juliette Berg, will ensure that Windows file folder permissions, used to control access to sensitive project data, are audited at least quarterly to ensure that project personnel with the continued “need to know” credentials are the only individuals permitted access to these data. The principal investigator will be responsible for ensuring that project staff comply with all security measures. REL Midwest research analysts

who work directly with the study data will sign a data use agreement that requires them to uphold data security, nondisclosure, and data governance plans and will adhere to all data confidentiality procedures.

Any data obtained for this study will be used only for statistical and descriptive analyses. All transcript data will be stripped of any personally identifiable data and will be stored on a secure server. Study reports will not identify the name of any specific analysis unit (i.e., teachers, students, instructional coaches). The study's principal investigator will lead the data management and quantitative and qualitative analysis tasks. Staff will maintain a log of any data activity in order to keep detailed records related to the merging, cleaning, processing, and analysis of the data files.

If Dr. Berg leaves the study, the co-principal investigators, Jill Bowdon, will be designated as responsible for ensuring that data security is maintained. The leader of REL Midwest's applied research portfolio, Amy Feygin, will work with the co-principal investigators to ensure that the transition is smooth and that the study data remain confidential.

Format for Final Data File:

The data obtained from CPS is administrative data that cannot be shared publicly by IES. Instead of a data file, a program file (.txt file) showing the steps taken to merge and clean data and create new variables will be posted on the REL website on the study's report publication page, along with a completed Alternative Data Management Plan Template. In addition, at the conclusion of the study, AIR will provide CPS will deidentified interview transcripts in a zipfile. Interview transcripts will be verbatim transcriptions of interviews conducted by REL Midwest researchers and teachers, instructional coaches, and district leaders, with any potentially identifying information redacted. The files will be maintained by the Department of Literacy and can be accessed by contacting Jane Fleming, Director of Literacy.

If a Public Use File is not available, why?:

CPS has strict protocols in place for data-sharing, including deidentified data. All researchers who are interested in working with deidentified student or teacher administrative or program data must submit an application to the CPS research review board and establish a data-sharing agreement with CPS. Our own data-sharing agreement with CPS prohibits us from making a public use file available. Instead of a data file, a program file (.txt file) showing the steps taken to merge and clean data and create new variables will be posted on the REL website on the study's report publication page, along with a completed Alternative Data Management Plan Template.

Similarly, public-use files of qualitative interview data are not available due to concerns about confidentiality given the small number of interview participants. Instead of a data file, REL Midwest will post the interview protocols on the study's report publication page, along with information about who interested researchers can contact to establish a data-sharing agreement to gain access to the deidentified data files.