



FINDINGS FROM THE 2017 DRK-12 PROGRAM SURVEY



**Community for Advancing
Discovery Research in Education**

EDC

**Education
Development
Center**

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Summary of Findings

This report presents key findings from a keyword survey administered in 2017 to the principle investigators of the CADRE Discovery Research PreK–12 (DRK–12) program during the fall of 2017. The survey asked respondents to select keywords that described their projects' target audiences, project foci, and research and evaluation. A review of the 239 survey responses from principal investigators of the CADRE DRK–12 projects revealed trends and patterns in the three categories of target audience, project focus, and research and evaluation.

The respondents indicated that their projects target audiences primarily in middle school, high school, and elementary school settings (n=316) compared with those in preK (n=13) and post-secondary (n=35). Common populations include students and teachers. Surprisingly, less than half of all projects (46 percent) target underrepresented populations. Sixty-one (61) percent of the respondents' projects focus on urban settings as opposed to rural. In urban settings, a higher percentage of DRK–12 projects are focused on English learners and student populations with low socioeconomic status.

While historically not the target audiences of DRK–12 programs, a small percentage of respondents indicated preK (5 percent) and families (14 percent) as target audiences. Respondents with rural-focused projects indicated that administrators are a target audience at a much higher rate (87 percent) than respondents with urban-focused projects (19 percent).

The keywords selected most frequently in the project focus category were instructional practice (n=129), curricula activities (n=125), professional development (n=115), STEM practices (n=107), teacher content knowledge (n=80), and educational technology (n=79). Of the 64 projects that address broadening participation, the majority also address equity and diversity, but only 27 percent address accessibility.

Regarding research and evaluation methodologies, the majority of respondents' DRK–12 projects use qualitative methods (n=144). Outcome variables of interest are primarily student outcomes (n=150), content knowledge (n=119), and teacher outcomes (n=113). More projects that focus on student outcomes without looking at teacher outcomes also focus on science and curriculum activities. See Table 1 in the Appendix for a detailed display of keyword and project counts for research and evaluation.

The report is divided into three sections based on the keyword survey: **Target Audience**, **Project Focus**, and **Research & Evaluation**. Each section begins with an overview of the subtopics related to each major finding. Data visuals are shown by percentage when indicated. All other charts show project counts. This report does not include all findings from the survey; rather, it presents trends in areas of current interest in the field.

Target Audience

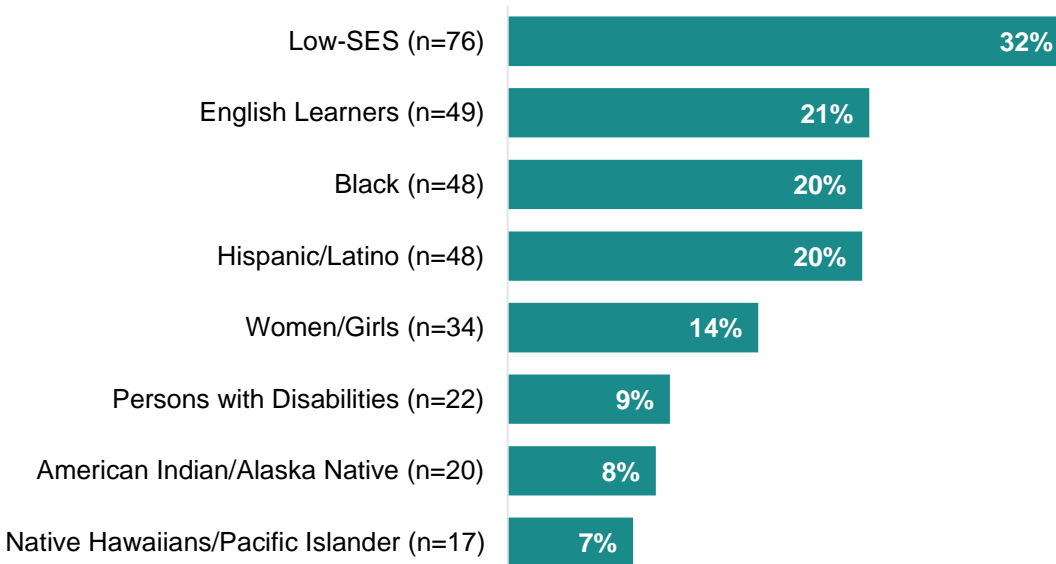
This section presents the notable findings concerning projects' target audiences. Key findings are sorted into the subtopics of underrepresented populations, grade level, and rural and urban areas. See Table 2 in the Appendix for a detailed display of target audiences for rural-focused and urban-focused projects.

Underrepresented Populations

Less than half of all projects (n=239) target at least one underrepresented population.

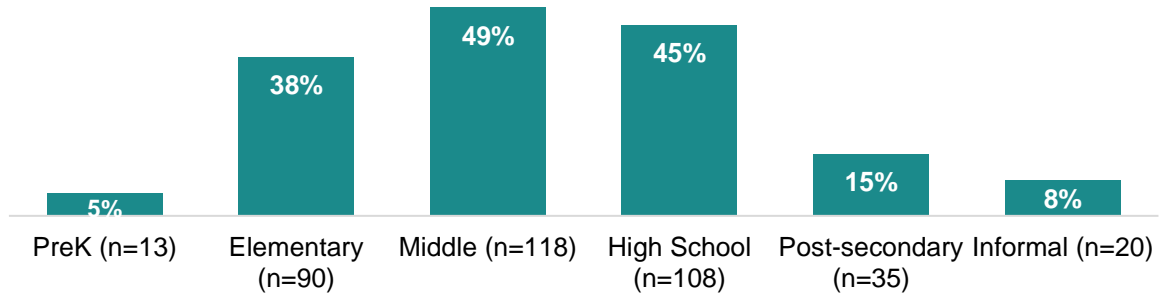


The most common target audiences in underrepresented subgroups are those with low socioeconomic status (SES).



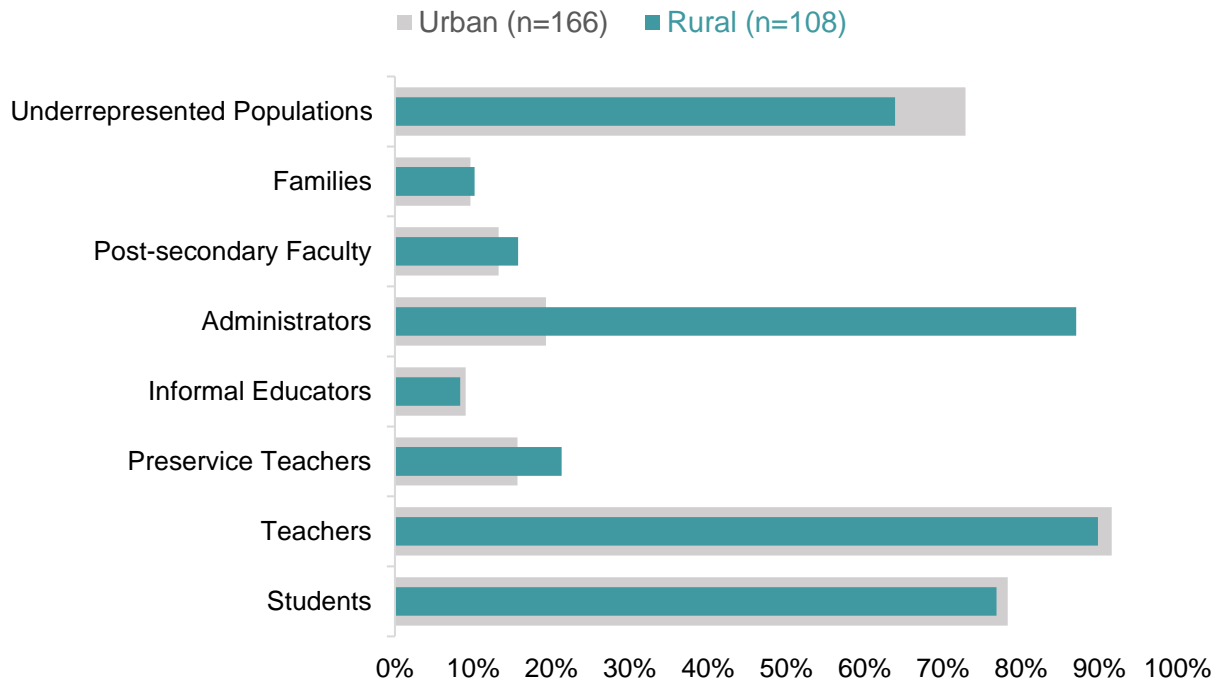
Grade Level

Target audiences were primarily at the middle school, high school, and elementary school levels.

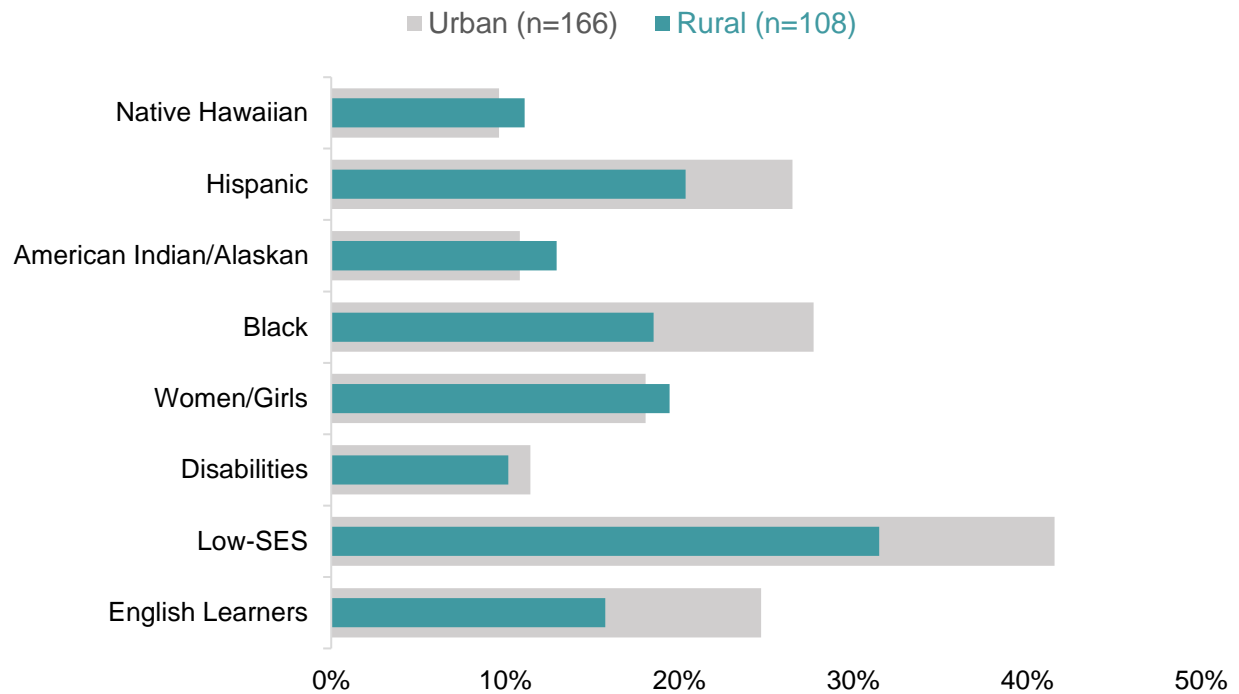


Rural-focused and Urban-focused

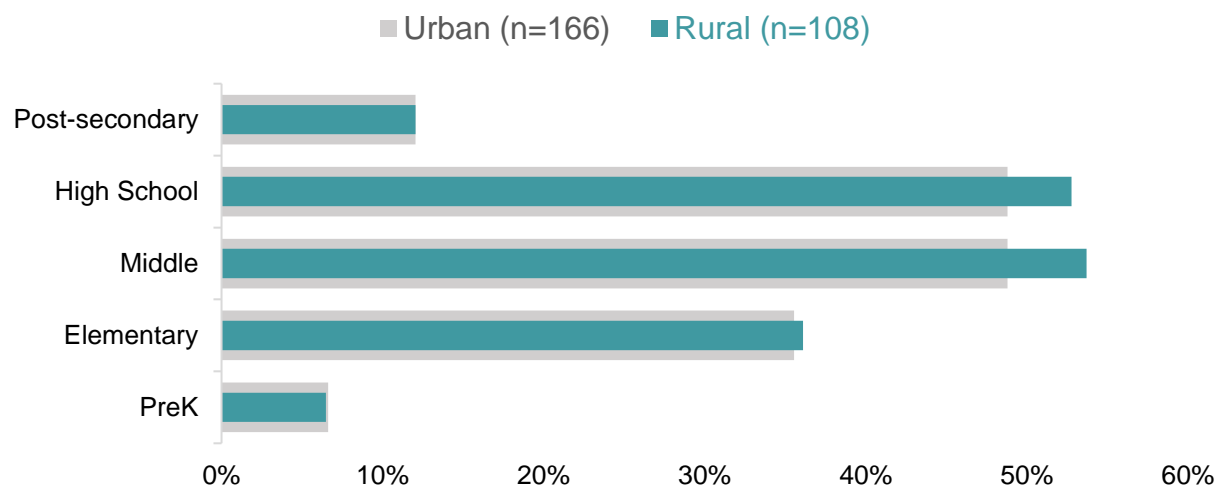
Rural-focused projects target administrator audiences far more than **urban-focused** projects do.



Within underrepresented populations, target audiences differ slightly, with **urban-focused projects** targeting those with low SES more than **rural-focused projects** do.



Rural-focused projects target high school and middle school audiences slightly more than **urban-focused projects**.

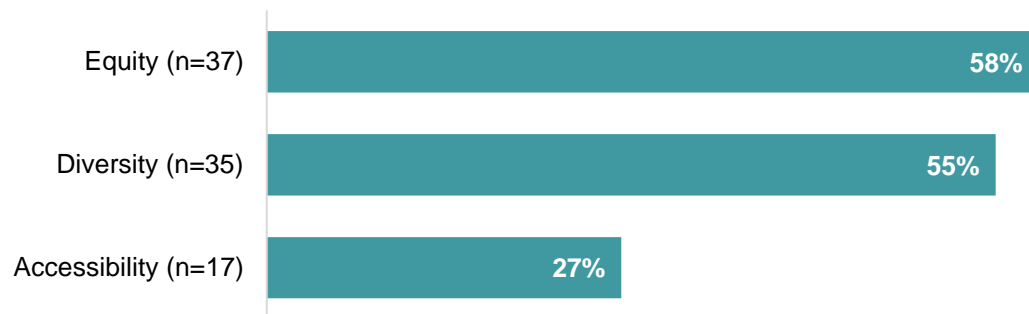


Project Focus

This section presents patterns and trends in project foci. Key findings are sorted into the subtopics of broadening participation, STEM disciplines, and educational technology.

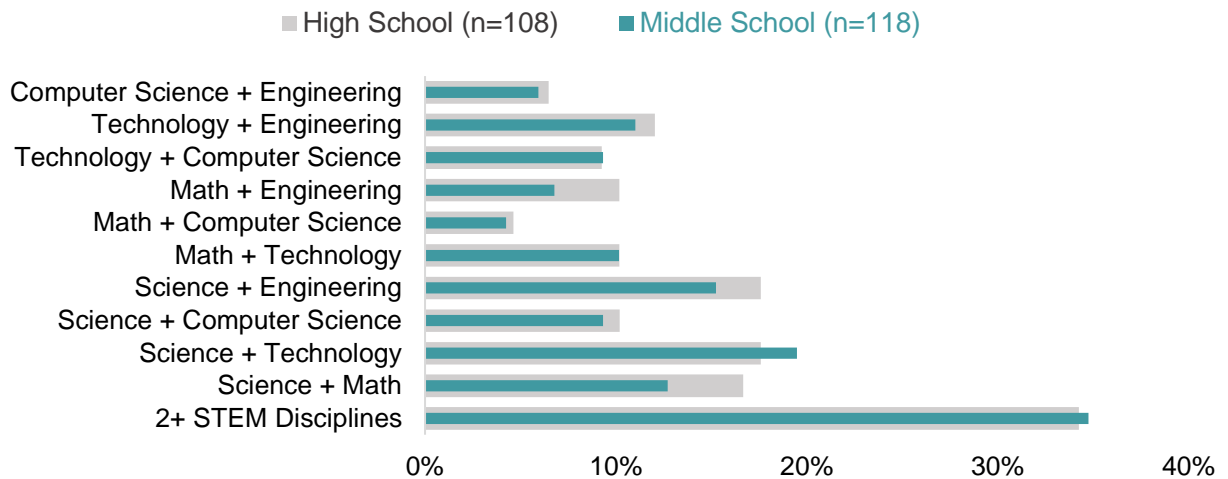
Broadening Participation

Most of the projects that address broadening participation (n=64) also address diversity and equity. Some (~27%) address accessibility.

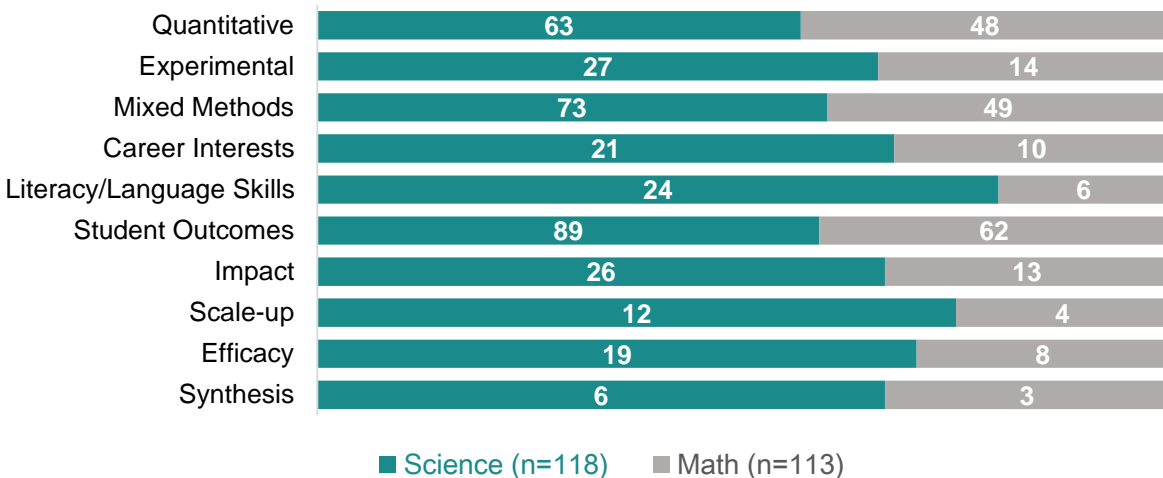


STEM Discipline

Projects tagged with multiple STEM disciplines at the **high school** and **middle school** levels had similar trends overall.

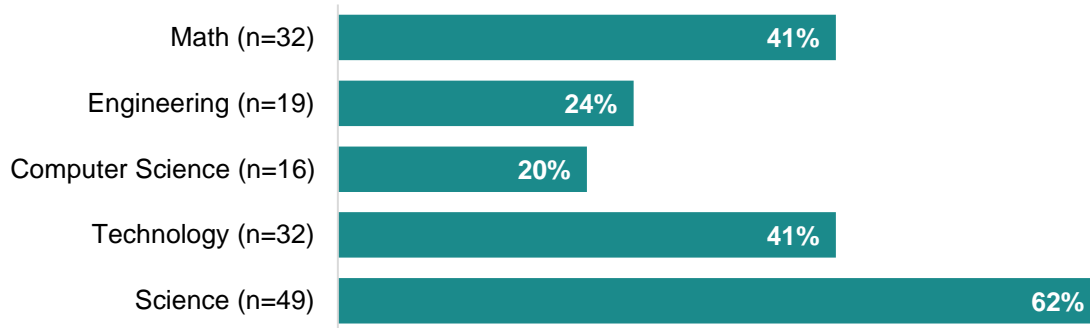


Although there are almost equal numbers of projects focusing on science as focus on math, many more science-focused projects use quantitative methods, examine impact and efficacy, and study literacy/language skills compared with math-focused projects.

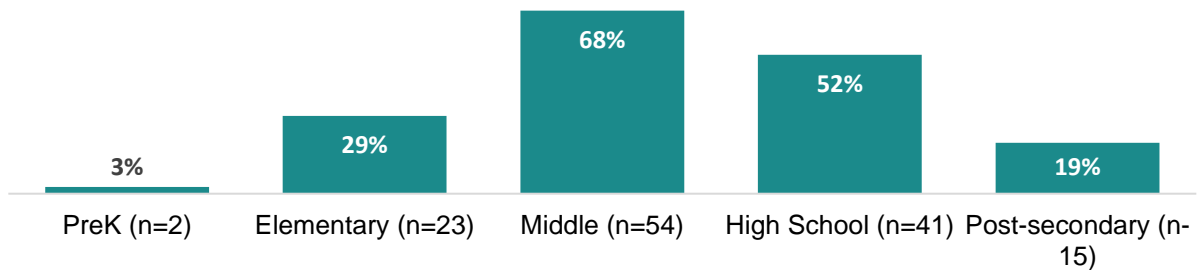


Educational Technology

Projects with a focus in educational technology also have discipline areas in science, math, and technology.



Projects with a focus in educational technology target middle school and high school audiences more than elementary audiences.



Research & Evaluation

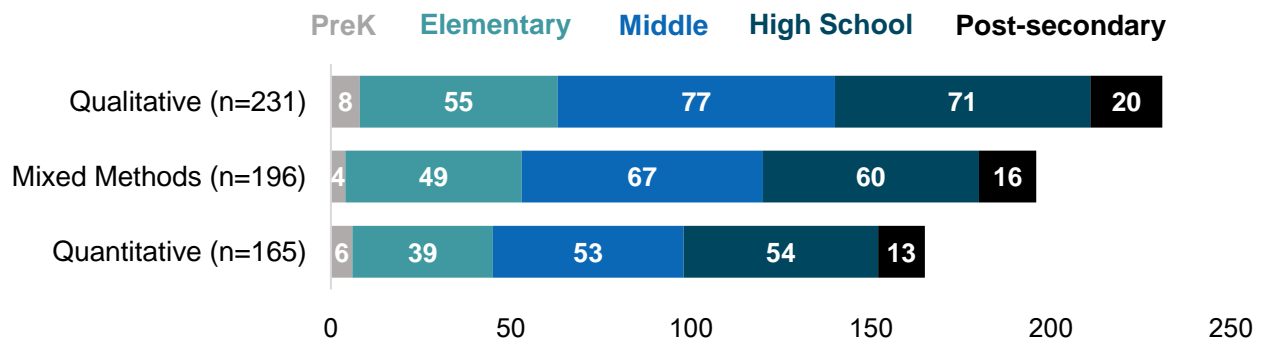
This section presents the prominent findings about projects' research and evaluation. Key findings are sorted into the subtopics of methodologies, outcome measures, study designs, and noteworthy findings about projects examining efficacy, scale-up, and impact.

Key findings:

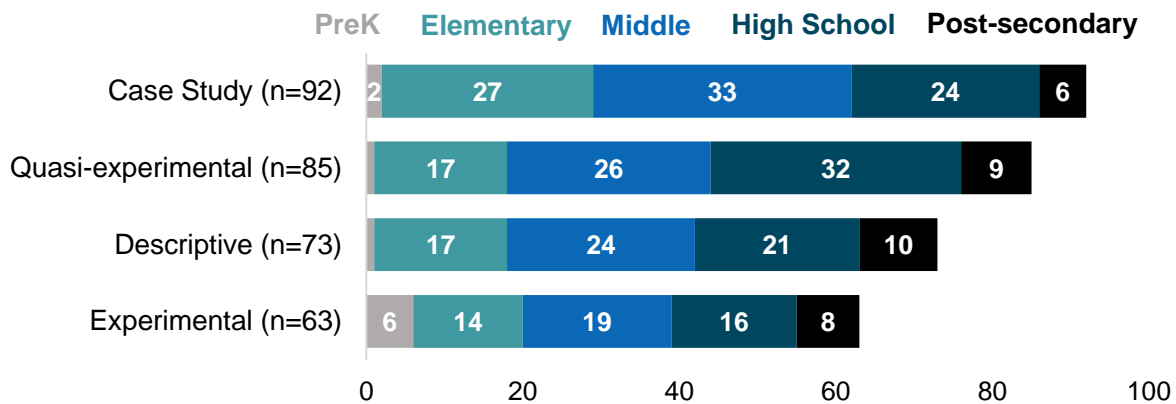
- Despite a rising interest in exploring social and emotional learning (SEL) in the field, SEL is the least common outcome measure. The most common outcome measures are student outcomes, instructional practices, and teacher outcomes. This may be due to inadequate SEL outcome measures.
- Seventy-five (75) respondents indicated that their projects look at student outcomes but not teacher outcomes.

Methodologies

Qualitative methods are the most common methods used across projects.

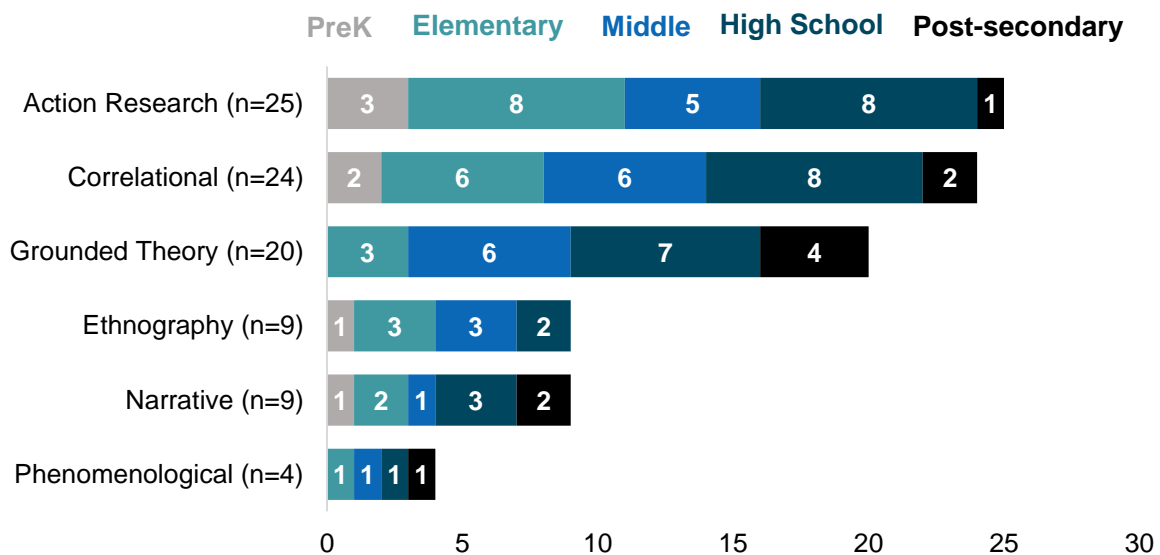


Case studies are the most common qualitative method used.



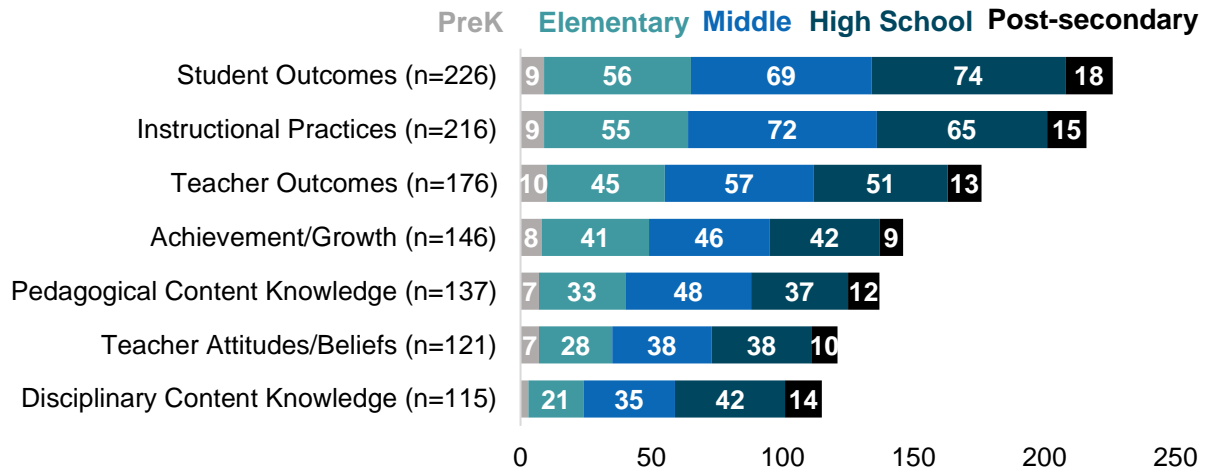
Note: One quasi-experimental study and one descriptive study were associated with preK.

The least common research categories are phenomenological, narrative, and ethnography.



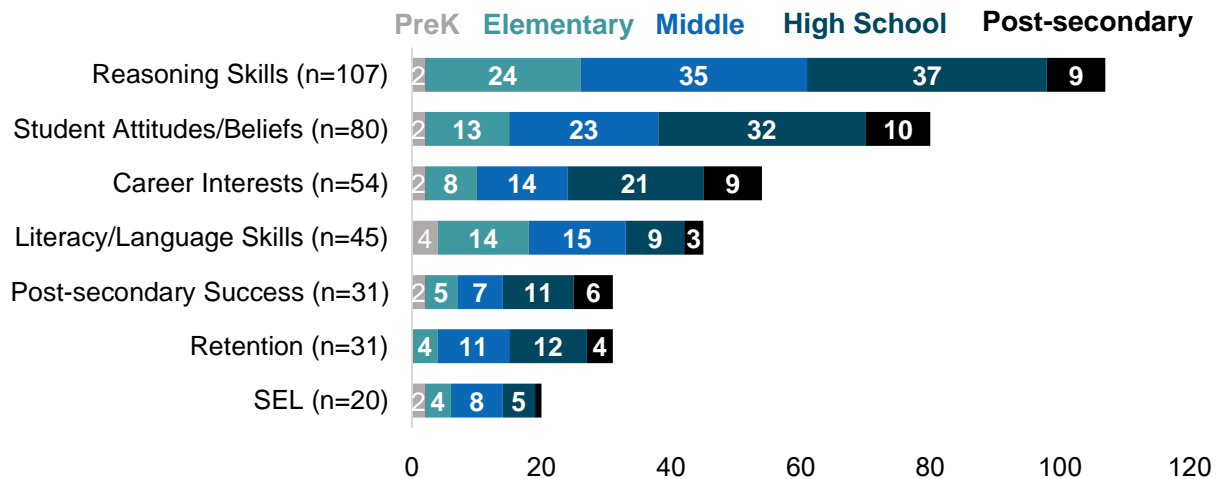
Outcome Measures

The most common outcome measures are student outcomes, instructional practices, and teacher outcomes.



Note: Disciplinary content knowledge was an outcome for three preK-focused projects.

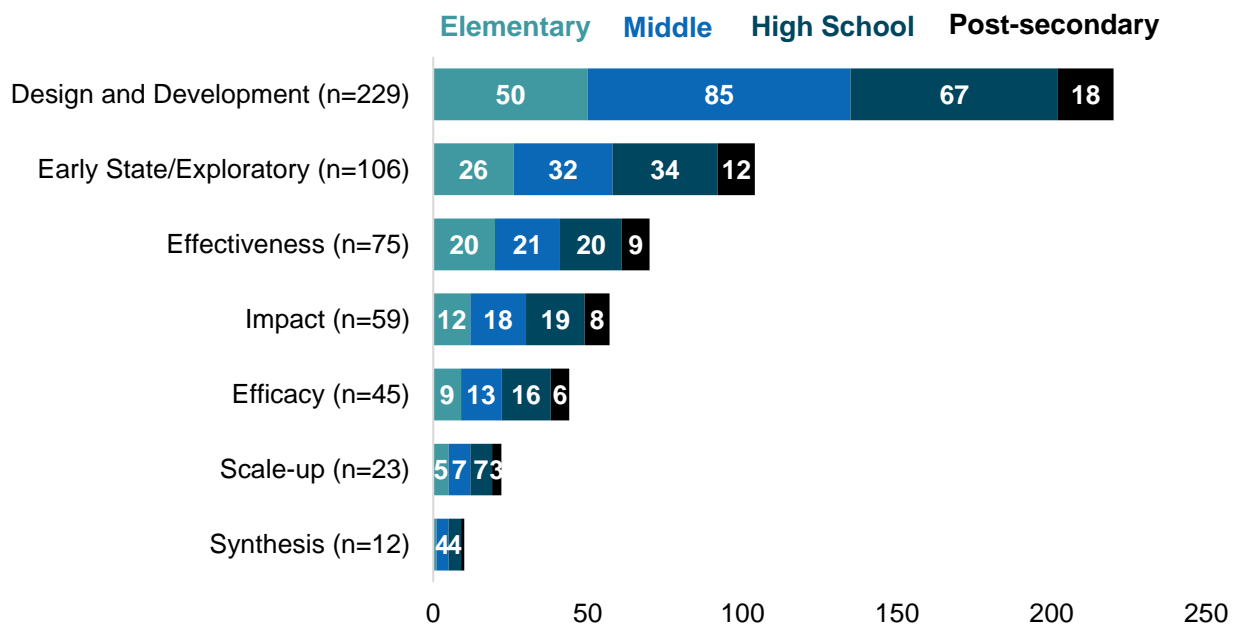
The least common outcome measures are SEL, retention, and post-secondary success.



Note: One project with a post-secondary audience indicated a focus on SEL.

Study Designs

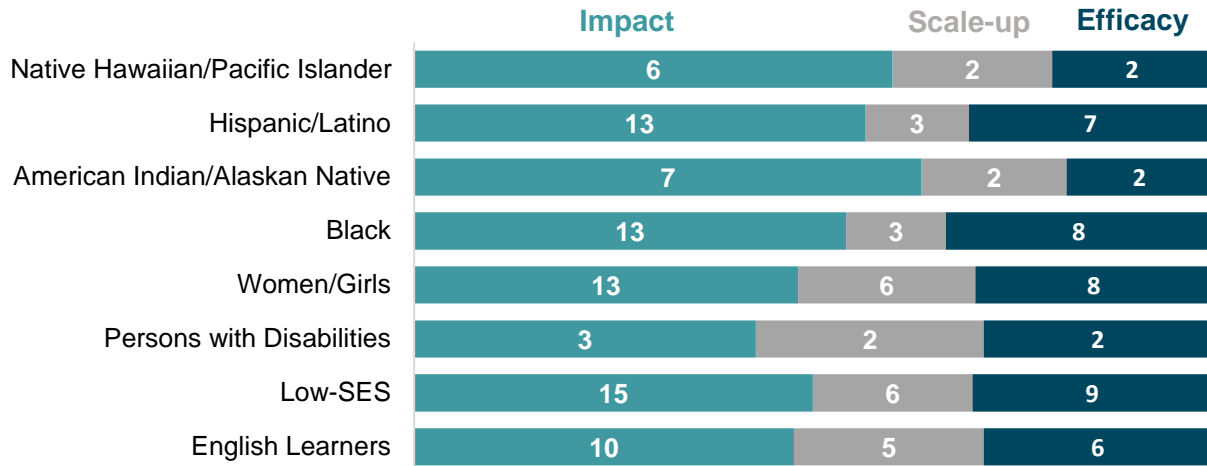
Projects use mostly early state/exploratory designs and designs concerning effectiveness, followed by impact, efficacy, and scale-up designs.



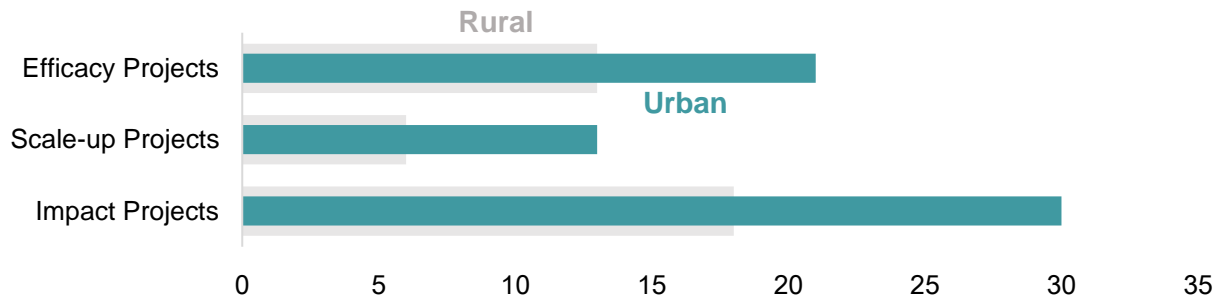
Note: Regarding the synthesis category, one project looked at the elementary schooling level and one examined the post-secondary level. Both middle school and high school levels were examined by four synthesis design projects.

Trends in Efficacy, Scale-up, and Impact

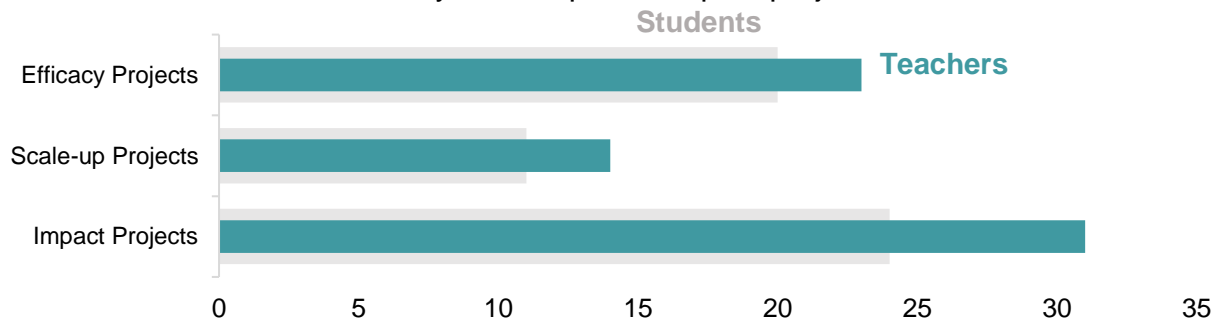
Underrepresented populations are target audiences for impact projects more often than for scale-up projects or efficacy projects.



Efficacy and impact projects were more likely to be **rural-focused**, whereas scale up projects were more likely to be **urban-focused**.



Teachers are the target audience more often than **students** in efficacy, scale-up, and impact projects.



Appendix

Table 1. Research and Evaluation by Target Audience and Project Focus, by Count

Research & Evaluation Categories	Project Focus: Discipline/Topic Areas																													
	Target Audience: Grade Level												Target Audience: Discipline/Topic Areas																	
	Pre-K	Elementary	Middle	High School	Post-Secondary	STEM Practices	Science	Technology	Computer Science	Engineering	Mathematics	Assessment	Broadening Participation	Accessibility	Diversity	Curricular Activities	Instructional Practice	Educational Technology	PD	SEL	Special Education	Standards	Systems Reform	Teacher Content Knowledge	TOTALS					
Methodology	3	8	5	8	1	7	7	3	2	3	6	6	4	2	5	6	10	1	11	3	8	2	0	3	1	9	13			
	2	27	33	24	6	34	38	13	9	14	28	16	19	9	15	41	6	44	21	14	34	6	5	16	4	28				
	2	6	6	8	2	7	7	3	4	4	8	11	5	2	3	5	3	10	6	4	8	2	1	2	0	10	14			
	1	17	24	21	10	31	24	15	5	13	29	17	17	8	10	11	27	5	33	22	13	23	3	4	15	3	16	44		
	1	3	3	2	0	4	2	0	2	3	0	3	1	4	5	3	0	2	1	3	0	0	0	0	0	2	6			
	6	14	19	16	8	20	27	13	5	11	14	14	15	7	12	12	21	6	21	15	9	25	4	2	9	1	12	36		
	0	3	6	7	4	6	6	3	2	2	8	0	9	3	2	3	11	1	9	4	4	3	0	1	3	0	3	13		
	4	49	67	60	16	67	73	30	14	27	49	44	34	15	23	27	76	15	81	61	27	68	6	7	22	8	48	127		
	1	2	1	3	2	2	3	1	2	2	5	1	3	1	1	2	3	0	3	2	0	4	2	0	0	1	2	6		
	0	1	1	1	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1	1	1		
Outcomes	8	55	77	71	20	68	74	33	15	30	74	35	47	21	30	35	83	13	84	50	29	73	7	6	28	9	49	144		
	6	39	53	54	13	55	63	28	13	23	48	32	35	12	20	22	65	13	59	43	25	53	7	5	23	7	37	109		
	1	17	26	32	9	25	29	11	6	8	21	15	16	8	11	30	7	26	26	10	20	3	1	8	0	19	55			
	8	41	46	42	9	42	49	24	13	18	42	33	27	10	18	23	56	14	49	33	27	45	5	3	13	5	33	91		
	2	8	14	21	9	20	21	13	8	10	10	7	16	4	13	12	20	2	14	13	2	15	3	0	6	3	11	28		
	5	41	64	60	21	58	59	30	13	23	56	38	37	14	22	27	75	12	63	57	28	57	7	6	20	2	55	119		
	3	21	35	42	14	38	40	16	8	16	33	24	18	8	14	23	49	7	47	32	14	51	4	1	14	6	48	75		
	9	55	72	65	15	65	69	23	11	22	71	44	37	16	28	36	77	11	99	47	28	89	8	5	31	11	58	136		
	4	14	15	9	3	19	24	10	5	11	6	11	11	5	11	12	18	6	16	12	5	21	5	2	7	1	13	26		
	7	33	48	37	12	45	45	15	8	14	43	28	21	6	16	23	52	7	58	33	17	65	7	1	22	8	58	89		
Design	2	5	7	11	6	8	11	8	4	5	8	4	8	4	8	7	11	2	7	9	4	9	3	0	1	3	8	14	44	
	2	24	35	37	9	42	39	18	8	13	26	27	22	9	11	13	48	13	41	34	21	28	5	2	13	2	19	70	170	
	0	4	11	12	4	10	11	9	7	6	9	7	10	7	7	10	13	5	11	11	5	14	5	1	3	3	10	17	50	
	2	4	8	5	1	6	7	6	4	3	6	5	10	5	9	9	10	3	7	6	6	9	8	1	2	1	7	12	42	
	2	13	23	32	10	28	29	20	8	13	19	9	22	6	14	15	36	9	31	25	7	25	3	3	11	3	21	49	149	
	9	56	69	74	18	75	89	35	16	36	62	40	44	17	32	38	96	14	79	56	34	70	8	6	21	8	51	150	406	
	7	28	38	38	10	48	46	19	9	18	33	19	21	9	13	20	42	5	47	25	13	55	5	3	16	9	41	76	191	
	10	45	57	51	13	56	62	19	12	22	51	31	28	8	19	28	58	9	71	32	17	87	7	2	24	12	56	113	284	
	0	2	2	2	1	0	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0	4	26	106
	TOTALS	9	50	85	67	18	78	76	33	15	23	67	51	42	21	30	39	87	15	89	60	30	80	8	6	30	9	53	146	366
2		26	32	34	12	25	29	14	5	16	32	10	18	8	11	13	30	4	37	23	7	31	2	5	7	2	23	63	163	
5		20	21	20	6	30	32	12	9	12	23	15	15	4	13	13	31	6	36	15	15	31	7	2	14	5	22	49	125	
1		9	13	16	9	14	19	7	6	11	8	7	7	2	5	4	16	2	14	10	8	13	4	0	7	2	9	25	83	
2		12	18	19	8	19	26	9	7	8	13	11	13	2	12	13	22	4	24	13	14	23	4	0	9	5	18	34	88	
1		5	7	7	3	11	12	4	4	4	4	4	7	7	2	5	6	10	5	10	7	3	11	3	1	4	3	6	14	44
2		1	4	4	1	5	6	4	3	4	3	4	3	4	2	3	4	4	4	4	5	4	4	0	2	1	4	7	40	100

Note: Totals refer to the overall project counts for each category heading. Within each project, a principal investigator was able to select multiple keywords within target audience, project focus, and research and evaluation.

Table 2. Target Audience of Rural-Focused and Urban-Focused Projects

Target Audience	Rural-Focused Projects (n=108)	Rural-Focused Projects (%)	Urban-Focused Projects (n=166)	Rural-Focused Projects (%)
Students	83	76.85%	130	78.31%
Teachers	97	89.81%	152	91.57%
Preservice Teachers	23	21.30%	26	15.66%
Informal Educators	9	8.33%	15	9.04%
Administrators	94	87.04%	32	19.28%
Post-secondary Faculty	17	15.74%	22	13.25%
Families	11	10.19%	16	9.64%
Underrepresented Populations	69	63.89%	121	72.89%
PreK	7	6.48%	11	6.63%
Elementary	39	36.11%	59	35.54%
Middle	58	53.70%	81	48.80%
High School	57	52.78%	81	48.80%
Post-secondary	13	12.04%	20	12.05%
Informal	15	13.89%	18	10.84%
English Learners	17	15.74%	41	24.70%
Low-SES	34	31.48%	69	41.57%
Persons with Disabilities	11	10.19%	19	11.45%
Women/Girls	21	19.44%	30	18.07%
Black	20	18.52%	46	27.71%
American Indian/Alaskan	14	12.96%	18	10.84%
Hispanic	22	20.37%	44	26.51%
Native Hawaiian	12	11.11%	16	9.64%

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