1. Impact on P-12 learning and development
(Component 4.1)

Juneau School District K-12 Student Achievement Data (Spring 2019)

In April 2019, the Juneau School District (JSD) provided student achievement data for the Measure of Academic Progress (MAP) testing for the Fall 2018 and Winter 2019 testing cycles. The data is disaggregated by grade level, subject area (Language Arts, Math and Reading) and whether or not the teacher recently completed an EPP program. The UAS sample of teachers (EPP completers) excludes teachers in specialty areas or those working in a schoolwide position. Students in the "UAS Sample" were excluded from the "District" growth calculation. Of the nine areas measured (Language Arts, Math and Reading at three levels) seven areas demonstrated that the JSD sample and the UAS completer sample were not significantly different. This suggests that the impact of UAS completers on P-12 learning was similar to that of the JSD sample (experienced, certified teachers) (see Table 1). There were no significant differences in the comparison of the JSD sample, and the UAS sample in terms of the achievement for ELL students (see Table 2).

In terms of the comparison between students aligned with UAS completers and the district population, there were two areas where there was a statistically significant difference. For Elementary Math, the UAS completers, the percentage of students achieving positive growth was 33.6% and for the district population was 45.8% a difference of 12.2 percentage points. The Z score (comparing the difference between the two proportions of the two groups) is -2.82 with a P value of .0048, further suggesting that the difference is significant.

In terms of the comparison between students aligned with UAS completers and the district population, there were two areas where there was a statistically significant difference. For Elementary Reading, for the UAS completers, the percentage of students achieving positive growth was 33.8% and for the district population was 44.4% a difference of 10.6 percentage points. The Z score (comparing the difference between the proportions of the two groups) is -2.482 with a P value of 0131, further suggesting that the difference is significant.

Limitations:

There are several limitations to an analysis of the data. For some of the data subsets, the number of students is low, particularly for the ELL group. There is also a question regarding the impact of a single teacher as the student progresses beyond elementary school. Achievement patterns for reading, math and language arts are often set (stable) to some degree by the 6th grade.

All of the completers selected in the JSD for this sample, completed a UAS prep. program between 2016 and 2018. The number percentage of inexperienced teachers in the Juneau School District is very small, reflecting a low annual turnover rate. Only 3.7% of the teachers at JSD during the 2017-2018 school year were considered “inexperienced” defined as a teacher in the first year of a teaching assignment (grade, subject or school). See Table 2: 2017-2018 JSD Teacher Quality. Comparing the impact of new teachers to experienced teachers is suspect. Also, new teachers are often assigned to more challenging teaching positions.

The only student performance data that is available from JSD is from standardized tests which presents a very limited view of student learning and academic progress. There has been general consensus among researchers that standardized tests. do not measure the transfer of domains of knowledge and academic skills (Amrein & Berliner, 2002), (Duckworth, 2008).

2. Indicators of teaching effectiveness
(Component 4.2)

As part of the EPP Multi-Case Study, the EPP conducted two Teacher Focus Forums in April, 2019.The responses from these forums provided insights intocandidates' preparation related to: 1) Integrating technology, 2) Designing engaging learning environments; 3) Incorporating Alaska Native knowledge and values; 4) Supporting learning experiences for all students; 5) Designing and evaluating assessment tools; 5) Enacting duties and responsibilities for current position.

The focus forum responses provided valuable insights into candidates' perceptions of their preparation, as well as indicators for areas where preparation could be focused more intentionally. Overall, candidates indicated that they felt sufficiently prepared across the different areas discussed, with the caveat that some aspects of classroom life cannot be significantly prepared for outside of a classroom.

Because candidates represent experiences in various programs across the EPP, areas of focus related to the different individual programs within the EPP may be distinctive, but these data indicate that all candidates were able to speak to the ways in which they were supported to develop proficiencies in these different areas regardless of individual program differences.

Additional indicators of teaching effectiveness are presented for CAEP Measure 4 (satisfaction of completers). The EPP was unable to complete classroom observations as planned for the case study because of school closures related to the COVID-19 pandemic.

A full report on the EPP multi-case study is available upon request.

Table 1

Comparing MAP Scores for All Students

		UAS Sample			Juneau School District (excluding UAS Sample)			Difference Between UAS Sample and Juneau School District		
MAP Assessment	Grade Level	N (All Students)	Positive Growth Determined (#)	Positive Growth Determined (%)	N (All Students)	Positive Growth Determined (#)	Positive Growth Determined (%)	Z Score (Two-tailed)	p-value	p < .05
Language Arts	All (Grade 2-10)	382	178	46.6%	2364	1115	47.2%	-0.207	0.8337	
	Elementary (Grade 2-5)	92	36	39.4%	1190	559	46.9%	-1.390	0.1645	
	Secondary (Grade 6-10)	290	142	49.0%	1174	558	47.5%	0.458	0.6455	
Math	All (Grade 0-8)	237	96	40.6%	2609	1216	46.6%	-1.774	0.0767	
	Elementary (Grade 0-5)	143	48	33.6%	1741	798	45.8%	-2.820	0.0048	*
	Secondary (Grade 6-8)	94	48	51.5%	869	418	48.1%	0.627	0.5287	
Reading	All (Grade 0-10)	398	172	43.3%	2888	1297	44.9%	-0.602	0.5485	
	Elementary (Grade 0-5)	146	49	33.8%	1760	782	44.4%	-2.482	0.0131	*
	Secondary (Grade 6-10)	252	123	48.7%	1127	513	45.5%	0.921	0.3576	

Source: Juneau School District

Note: Percent with positive growth refers to the percent of students who improved between fall 2018 and winter 2019 MAP tests, on NWEA's growth index. The UAS sample of teachers excludes teachers in specialty areas or those working in a schoolwide position. Students in the "UAS Sample" were excluded from the "District" growth calculation. Comparing the proportion of students who had positive growth between the UAS Sample and District, using a z score test, a significant difference was found in Math (p=0.0048) and Reading (p=0.01314) for Elementary grades when looking at all students. Z Score Calculator for 2 Population Proportions. (2019, May 16). Retrieved from https://www.socscistatistics.com/tests/ztest/default2.aspx.

Table 2

Comparing MAP Scores for ELL Students

		UAS Sample			Juneau School District (excluding UAS Sample)			Difference Between UAS Sample and Juneau School District		
MAP Assessment	Grade Level	N (ELL Students)	Positive Growth Determined (#)	Positive Growth Determined (%)	N (ELL Students)	Positive Growth Determined (#)	Positive Growth Determined (%)	Z Score (Two-tailed)	p-value	p < .05
Language Arts	All (Grade 2-10)	17	4	23.5%	148	67	45.0%	-1.697	0.089	
	Elementary (Grade 2-5)	6	1	16.7%	80	37	45.8%	-1.386	0.165	
	Secondary (Grade 6-10)	11	3	27.3%	68	30	44.0%	-1.042	0.298	
Math	All (Grade 0-8)	16	7	43.7%	159	79	49.4%	-0.435	0.667	
	Elementary (Grade 0-5)	10	4	40.0%	108	52	48.2%	-0.497	0.617	
	Secondary (Grade 6-8)	6	3	50.0%	51	26	51.9%	-0.088	0.928	
Reading	All (Grade 0-10)	16	4	26.3%	165	75	45.6%	-1.485	0.136	
	Elementary (Grade 0-5)	10	4	40.0%	102	48	47.2%	-0.436	0.660	
	Secondary (Grade 6-10)	6	1	11.1%	63	27	42.8%	-1.514	0.131	

Source: Juneau School District

Note: Percent with positive growth refers to the percent of students who improved between fall 2018 and winter 2019 MAP tests, on NWEA's growth index. The UAS sample of teachers excludes teachers in specialty areas or those working in a schoolwide position. Students in the "UAS Sample" were excluded from the "District" growth calculation. Comparing the proportion of students who had positive growth between the UAS Sample and District, using a z score test, a significant difference was found in Math (p=0.0048) and Reading (p=0.01314) for Elementary grades when looking at all students. Z Score Calculator for 2 Population Proportions. (2019, May 16). Retrieved from https://www.socscistatistics.com/tests/ztest/default2.aspx.