



# **Predicting TELPAS Overall Category Rankings Using ISIP™ Reading**

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## Executive Summary

This study provides information about the proficiency projection of Istation's Indicators of Progress (ISIP) Reading on the Texas English Language Proficiency Assessment System (TELPAS) for students in grades 2 through 5. Data for this study consists of ISIP and TELPAS scores from the 2017–2018 school year.

First, a correlational analysis was conducted to examine the Pearson product-moment associations between the TELPAS composite scale scores and the January ISIP Reading Overall scale scores. Second, a predictability study was conducted through multinomial logistic regression, where students' January ISIP Overall scale scores in reading were entered as the predictor variable and the TELPAS performance categories were the outcome variable. The purpose of this research was to predict the probability that a student would be ranked in the Advanced or Advanced High performance category.

Results show strong associations between the ISIP Reading Overall score and the TELPAS composite scale score. Correlations ranged from .72 to .75. Results of the multinomial logistic regression also demonstrate a strong relationship between ISIP Reading scores and skills measured on the TELPAS.

Specifically, January ISIP scores that have a high probability of ranking Advanced or Advanced High on the TELPAS are similar in grades 2 and 3, and grades 4 and 5 respectively. Students in grade 2 have a high probability (greater than .66) of reaching Advanced when their ISIP score is at the 33<sup>rd</sup> percentile, but they need to score at the 95<sup>th</sup> percentile for a high probability of reaching Advanced High. Students in grade 3 need to score at the 14<sup>th</sup> percentile to have a high probability of reaching Advanced and at the 76<sup>th</sup> percentile to have a high probability of reaching Advanced High. For a high probability of reaching Advanced High, grade 4 students need to score at the 71<sup>st</sup> percentile and grade 5 students at the 56<sup>th</sup> percentile.

## Introduction

Istation's Indicators of Progress, or ISIP™, is a computer-adaptive test (CAT) used to measure proficiency in both English language skills and math ability. ISIP Reading measures several subdomains of competency, including vocabulary, spelling, and reading comprehension. ISIP Reading gives overall scores as well as scores for each domain that are derived using a two-parameter logistic item response theory (2-PL IRT) model. The assessment can be given each month to monitor a student's progress and identify potential areas for improvement. Teachers use this information to adjust instruction to strengthen each student's overall ability (Mathes et al., 2016). ISIP Reading demonstrates strong correlations with other assessments such as the State of Texas Assessment of Academic Readiness (STAAR), Georgia Milestones, ACT Aspire, Ohio AIR, and the NWEA MAP (see Mathes et al., 2022 for a summary of reliability and validity of ISIP Reading).

The information provided by ISIP allows for continuously differentiated instruction and tracking growth. In 2022, the ISIP Early Reading assessment and ISIP Advanced Reading assessment were linked and placed on a common scale that ranges from 100–900. This new common scale allows for tracking growth across multiple years and comparing students from one grade level to the next. Moreover, this allows for more accurate and intuitive comparisons of ISIP with other assessments (Mathes et al., 2022).

The state of Texas uses the Texas English Language Proficiency Assessment System (TELPAS) to collect performance data to meet federal reporting requirements (Texas Education Agency, n.d.). Using the TELPAS, English learners (ELs) in kindergarten through grade 12 demonstrate their English language proficiency in four domains: listening, speaking, reading, and writing. The Texas Education Agency (TEA) requires all ELs to complete the assessment regardless of their participation in bilingual

## ISIP™ and TELPAS

or English-as-a-second-language programs. The TELPAS is administered each year during a window between February and May (Texas Education Agency, n.d.).

Unlike other state assessments, the TEA states, the TELPAS does not report a pass or fail score because it does not measure an EL's mastery of content. Rather, the assessment results are reported based on a proficiency continuum with four different proficiency levels: Beginning, Intermediate, Advanced, and Advanced High. Students receive an individual proficiency rating for each domain. The TEA (Texas Education Agency, n.d.) describes ELs with a Beginning proficiency rating thusly:

“Students who receive this rating are in the early stages of learning English.

These students have a small vocabulary of very common words and little ability to use English in academic settings. These students often communicate using English they have memorized.”

At the other end of the scale, a rating of Advanced High proficiency is described as such:

“Students who receive this rating are able to use academic English in classroom activities with little English language support from others, even when learning about unfamiliar material. Students at this level have a large enough vocabulary in English to communicate clearly and fluently in most situations.”

Students in the Advanced High category are expected to be as proficient as native English speakers.

According to the TEA, students in grades 2 through 12 take an online assessment to measure their proficiency in listening, speaking, and reading. However, the writing portion of the assessment is rated holistically using trained individuals as raters. English learners in kindergarten and grade 1 are assessed holistically for all of the domains. The

## ISIP™ and TELPAS

proficiency ratings for these early grades include observational assessments completed by trained raters.

In addition to the individual domain scores, a composite score is calculated and reported (Texas Education Agency, n.d). In order to use the individual domain scores in the composite score, the domain rating is converted to a numerical scale ranging from 1 for Beginning to 4 for Advanced High. Each domain score is given an equal weight of 25% of the composite score. The domain score is then multiplied by the weight, and the four weighted scores are added together to determine the composite rating. A composite score of 3.5 or higher is considered Advanced High, 2.5 to 3.4 is Advanced, 2.4 to 1.5 is Intermediate, and below 1.5 is Beginning (Texas Education Agency, n.d.).

The TELPAS shows reliability with other assessments. In a sample of second grade students, the TELPAS score correlated with the State of Texas Assessment of Academic Readiness (STAAR) assessment at .61 (Villicana-Briseno, 2020). Correlations for TELPAS with the Texas Assessment of Knowledge and Skills (TEKS) assessment ranged from .74 for third graders to .65 for fifth graders and .55 for eighth graders (Badgett et al., 2012).

In this study we sought to examine the relationship between ISIP Reading and the TELPAS composite rating. Using data from a large, urban school district in north Texas, we evaluated the probability of a student reaching each category on the TELPAS based on their middle-of-the-year ISIP score. This information should allow teachers and administrators to estimate how a student will perform on the TELPAS given their performance on ISIP. This study is important as the TELPAS is a high-stakes assessment that is part of the school accountability system in Texas, and it impacts a school's ability to meet federal and state targets for EL students (Collier & Huang, 2019).

## Data and Methods

We obtained data in partnership with a large urban school district for this study. The data consisted of ISIP and TELPAS scores for the 2017–2018 school year as well as student demographics. Istation implemented a vertical scale in 2022 with updated norms based on a sample from the 2018–2019 school year. We first applied the vertical scale to the ISIP Reading scores and then applied the new norms to this data set, so the scores used in the calculations below are based on the most recent norms.

We examined the Pearson product-moment correlation between the TELPAS composite scale score and the January ISIP Reading Overall scale score for each grade. We then conducted a simple multinomial regression analysis using the January ISIP Reading Overall score to predict TELPAS composite ratings. The sample consisted of students who had an ISIP Reading score, meaning their teachers had determined that the students' English skills were proficient enough for them to take ISIP Reading. The school district that shared the data for this study stated that students who are not ready to take ISIP Reading do not take that assessment. Therefore, the sample is not representative of all EL students, but rather it is representative of those who have relatively higher English language proficiency.

### Sample Description

For this study, we examined students in grades 2 through 5. Prior to grade 2, student composite ratings on the TELPAS are assigned through a teacher rating. Above grade 5, the sample was insufficient to conduct a meaningful analysis. This was due to both a small sample size and a more strongly skewed sample in grade 6 that prevented meaningful inference. All students in the sample were identified as ELs. Virtually all students in this sample were at least ranked in the Intermediate TELPAS category. This is likely because the school district ensures that students who are not prepared to take

## ISIP™ and TELPAS

ISIP Reading do not do so. Instead, those students whose English skills are below this threshold typically take ISIP Lectura, Istation’s Spanish-language literacy assessment.

The grade 2 sample consisted of 93.69% of students that were of Hispanic origin. Grade 3 students were 92.93% of Hispanic origin, 92.02% of students in grade 4, and 93.52% of students in grade 5 were of Hispanic origin. Less than 3% of the sample consisted of students who were non-Hispanic White, less than 5% were non-Hispanic Black, and less than 4% were Others, such as students of Asian origin or multi-race. The gender makeup was approximately 49% female and 51% male in grades 2 and 3, and there were slightly fewer females in grades 4 and 5. These results are summarized in Table 1.

We eliminated outlier scores from the sample by excluding ISIP scores below the 1<sup>st</sup> percentile or above the 99<sup>th</sup> percentile. The counts in the table below reflect the final analytic sample. Means and standard deviations by grade for ISIP Reading and TELPAS are available in Table 2.

**Table 1.**  
*Sample Demographics by Race/Ethnicity and Gender*

<b>Grade</b>	<b>N</b>	<b>Non-Hispanic Black</b>	<b>Hispanic / Any Race</b>	<b>Non-Hispanic White</b>	<b>Non-Hispanic Asian / Others</b>	<b>Female</b>	<b>Male</b>
<b>2</b>	3218	<1%	93.69%	<1%	5.27%	48.2%	51.8%
<b>3</b>	2052	0%	92.93%	1.39%	5.71%	49.0%	51.0%
<b>4</b>	1491	0%	92.02%	1.54%	6.44%	46.0%	54.0%
<b>5</b>	1575	0%	93.52%	1.33%	5.15%	47.6%	52.4%

**Table 2.***Means and Standard Deviations for ISIP Reading January Scores and TELPAS Scores*

<b>Grade</b>	<b>N</b>	<b>ISIP Reading Mean (SD)</b>	<b>TELPAS Mean (SD)</b>
<b>2</b>	3218	367.34 (60.07)	1496 (72.98)
<b>3</b>	2052	410.92 (63.28)	1532 (100.76)
<b>4</b>	1491	459.69 (58.54)	1537 (85.34)
<b>5</b>	1575	490.43 (60.54)	1581 (98.86)

## Predictive Models

For this study, we used a student’s January ISIP Reading Overall scale score to predict the probability that the student would be ranked in the Advanced or Advanced High categories. We first calculated the relationship between ISIP Reading and TELPAS with Pearson product-moment correlations. Next, to model the probabilities, we used a multinomial logistic regression model, employing the “multinom” function from the *R* package “nnet.”

Using the parameters derived from this analysis, we generated tables showing the probability of landing in Advanced and Advanced High at each percentile rank score. Values that are less than 33% probabilities are categorized as a student having a low probability of achieving a TELPAS level. Students had a medium probability of achieving a TELPAS level if the probabilities were 33% to 66.69% and a high probability at or above 67%. These results are summarized in tables 4 through 7.

## Results

The data clearly show a strong correlation between the ISIP Reading Overall score and the TELPAS composite score. The correlations range from .72 to .75. This indicates a high level of predictability of TELPAS composite scores given the ISIP Reading score in January, with 52 to 56% of the variability in the TELPAS score



attributable to factors measured in the ISIP Reading Overall score. These results are summarized in Table 3.

**Table 3.**

*TELPAS Composite Score Scale and January ISIP Overall Score Correlations by Grade*

<b>Grade</b>	<b>Pearson r</b>
<b>2</b>	.73
<b>3</b>	.72
<b>4</b>	.75
<b>5</b>	.75

The results of the multinomial logistic regression are available in tables 4 through 7. Most notable is the discrepancy between the percentile ranks needed to have a high probability of reaching the Advanced category versus Advanced High. Students in grade 2 have a high probability of reaching Advanced at the 34th percentile, but they need to be at the 95th percentile to have a high probability of meeting Advanced High. In grade 3, students have a high probability of reaching Advanced at the 14th percentile, and they need to be at the 76th percentile to have a high probability of reaching Advanced High. In grade 4, students at the 15th percentile have a high probability of reaching the Advanced category and need to be at the 71st percentile to reach Advanced High. In grade 5, students have a high probability of reaching Advanced at the 9th percentile, and they need to be at the 56th percentile to have a high probability of reaching Advanced High.

**Table 4.**

*Grade 2 Probability of Advanced or Advanced High and Category Ranking by January ISIP Percentile*

ISIP Scale Score	Percentile	Advanced Probability	Advanced Probability Category	Advanced High Probability	Advanced High Probability Category
265	1	0.014	Low	<0.001	Low
288	2	0.035	Low	<0.001	Low
303	3	0.060	Low	<0.001	Low
313	4	0.083	Low	<0.001	Low
321	5	0.107	Low	<0.001	Low
328	6	0.133	Low	0.001	Low
334	7	0.158	Low	0.001	Low
339	8	0.182	Low	0.001	Low
344	9	0.209	Low	0.002	Low
348	10	0.232	Low	0.002	Low
352	11	0.257	Low	0.003	Low
356	12	0.284	Low	0.004	Low
359	13	0.305	Low	0.005	Low
363	14	0.334	Medium	0.006	Low
366	15	0.357	Medium	0.007	Low
368	16	0.373	Medium	0.007	Low
371	17	0.397	Medium	0.008	Low
374	18	0.421	Medium	0.010	Low
376	19	0.438	Medium	0.011	Low
379	20	0.463	Medium	0.012	Low
381	21	0.480	Medium	0.014	Low
383	22	0.496	Medium	0.015	Low
385	23	0.513	Medium	0.017	Low
387	24	0.530	Medium	0.018	Low
389	25	0.547	Medium	0.020	Low
391	26	0.564	Medium	0.022	Low
393	27	0.581	Medium	0.024	Low
395	28	0.597	Medium	0.026	Low
397	29	0.614	Medium	0.028	Low
399	30	0.630	Medium	0.031	Low
401	31	0.646	Medium	0.033	Low

ISIP™ and TELPAS

402	32	0.654	Medium	0.035	Low
404	33	0.669	Medium	0.038	Low
406	34	0.684	High	0.041	Low
407	35	0.692	High	0.043	Low
409	36	0.706	High	0.046	Low
411	37	0.721	High	0.050	Low
412	38	0.727	High	0.052	Low
414	39	0.741	High	0.056	Low
415	40	0.748	High	0.058	Low
417	41	0.761	High	0.062	Low
418	42	0.767	High	0.065	Low
420	43	0.780	High	0.069	Low
421	44	0.786	High	0.072	Low
423	45	0.798	High	0.077	Low
424	46	0.803	High	0.080	Low
426	47	0.814	High	0.086	Low
427	48	0.820	High	0.089	Low
429	49	0.830	High	0.095	Low
430	50	0.835	High	0.098	Low
431	51	0.840	High	0.101	Low
433	52	0.850	High	0.108	Low
434	53	0.854	High	0.112	Low
436	54	0.863	High	0.119	Low
437	55	0.868	High	0.123	Low
439	56	0.876	High	0.131	Low
440	57	0.880	High	0.135	Low
441	58	0.884	High	0.139	Low
443	59	0.891	High	0.148	Low
444	60	0.895	High	0.152	Low
446	61	0.902	High	0.161	Low
447	62	0.905	High	0.166	Low
449	63	0.912	High	0.176	Low
450	64	0.915	High	0.181	Low
452	65	0.921	High	0.191	Low
453	66	0.923	High	0.196	Low
455	67	0.929	High	0.207	Low
456	68	0.931	High	0.213	Low

ISIP™ and TELPAS

458	69	0.936	High	0.224	Low
459	70	0.939	High	0.230	Low
461	71	0.943	High	0.242	Low
462	72	0.945	High	0.248	Low
464	73	0.949	High	0.261	Low
466	74	0.953	High	0.273	Low
467	75	0.955	High	0.280	Low
469	76	0.959	High	0.293	Low
471	77	0.962	High	0.307	Low
473	78	0.965	High	0.321	Low
475	79	0.968	High	0.335	Medium
477	80	0.970	High	0.350	Medium
479	81	0.973	High	0.365	Medium
481	82	0.975	High	0.380	Medium
483	83	0.977	High	0.395	Medium
485	84	0.979	High	0.410	Medium
487	85	0.981	High	0.426	Medium
490	86	0.983	High	0.449	Medium
492	87	0.985	High	0.465	Medium
495	88	0.987	High	0.489	Medium
498	89	0.989	High	0.512	Medium
501	90	0.990	High	0.536	Medium
504	91	0.991	High	0.559	Medium
508	92	0.993	High	0.590	Medium
512	93	0.994	High	0.620	Medium
517	94	0.996	High	0.656	Medium
522	95	0.997	High	0.690	High
529	96	0.998	High	0.734	High
537	97	0.999	High	0.780	High
548	98	0.999	High	0.833	High
566	99	>0.999	High	0.897	High

**Table 5.**

*Grade 3 Probability of Advanced or Advanced High and Category Ranking by January ISIP Percentile*

ISIP Scale Score	Percentile	Advanced Probability	Advanced Probability Category	Advanced High Probability	Advanced High Probability Category
296	1	0.062	Low	<0.001	Low
325	2	0.149	Low	0.001	Low
342	3	0.229	Low	0.003	Low
353	4	0.294	Low	0.005	Low
363	5	0.360	Medium	0.008	Low
370	6	0.411	Medium	0.012	Low
377	7	0.463	Medium	0.016	Low
382	8	0.502	Medium	0.020	Low
387	9	0.540	Medium	0.025	Low
392	10	0.578	Medium	0.031	Low
396	11	0.608	Medium	0.037	Low
400	12	0.638	Medium	0.043	Low
403	13	0.659	Medium	0.048	Low
407	14	0.687	High	0.056	Low
410	15	0.707	High	0.063	Low
413	16	0.727	High	0.070	Low
415	17	0.739	High	0.075	Low
418	18	0.758	High	0.083	Low
421	19	0.775	High	0.092	Low
423	20	0.787	High	0.099	Low
425	21	0.798	High	0.106	Low
428	22	0.813	High	0.116	Low
430	23	0.823	High	0.124	Low
432	24	0.833	High	0.132	Low
434	25	0.842	High	0.140	Low
436	26	0.851	High	0.149	Low
438	27	0.860	High	0.158	Low
440	28	0.868	High	0.167	Low
442	29	0.876	High	0.177	Low
443	30	0.880	High	0.182	Low
445	31	0.887	High	0.193	Low

ISIP™ and TELPAS

447	32	0.894	High	0.203	Low
449	33	0.901	High	0.215	Low
450	34	0.904	High	0.220	Low
452	35	0.910	High	0.232	Low
454	36	0.916	High	0.244	Low
455	37	0.919	High	0.250	Low
457	38	0.924	High	0.263	Low
458	39	0.927	High	0.269	Low
460	40	0.932	High	0.282	Low
461	41	0.934	High	0.289	Low
463	42	0.939	High	0.302	Low
464	43	0.941	High	0.309	Low
466	44	0.945	High	0.323	Low
467	45	0.947	High	0.330	Medium
469	46	0.951	High	0.345	Medium
470	47	0.953	High	0.352	Medium
471	48	0.955	High	0.359	Medium
473	49	0.958	High	0.374	Medium
474	50	0.960	High	0.382	Medium
476	51	0.963	High	0.397	Medium
477	52	0.964	High	0.404	Medium
479	53	0.967	High	0.420	Medium
480	54	0.968	High	0.428	Medium
481	55	0.970	High	0.435	Medium
483	56	0.972	High	0.451	Medium
484	57	0.973	High	0.459	Medium
486	58	0.975	High	0.474	Medium
487	59	0.977	High	0.482	Medium
489	60	0.978	High	0.498	Medium
490	61	0.979	High	0.505	Medium
491	62	0.980	High	0.513	Medium
493	63	0.982	High	0.529	Medium
494	64	0.983	High	0.536	Medium
496	65	0.984	High	0.552	Medium
497	66	0.985	High	0.559	Medium
499	67	0.986	High	0.574	Medium
500	68	0.987	High	0.582	Medium

## ISIP™ and TELPAS

502	69	0.988	High	0.597	Medium
504	70	0.989	High	0.612	Medium
505	71	0.990	High	0.619	Medium
507	72	0.991	High	0.633	Medium
509	73	0.991	High	0.647	Medium
510	74	0.992	High	0.654	Medium
512	75	0.993	High	0.668	Medium
514	76	0.993	High	0.681	High
516	77	0.994	High	0.695	High
518	78	0.995	High	0.707	High
520	79	0.995	High	0.720	High
522	80	0.996	High	0.732	High
524	81	0.996	High	0.744	High
526	82	0.996	High	0.755	High
528	83	0.997	High	0.766	High
530	84	0.997	High	0.777	High
533	85	0.997	High	0.792	High
536	86	0.998	High	0.807	High
538	87	0.998	High	0.816	High
541	88	0.998	High	0.829	High
544	89	0.999	High	0.842	High
548	90	0.999	High	0.857	High
552	91	0.999	High	0.871	High
556	92	0.999	High	0.884	High
560	93	0.999	High	0.896	High
566	94	>0.999	High	0.912	High
572	95	>0.999	High	0.925	High
580	96	>0.999	High	0.940	High
589	97	>0.999	High	0.954	High
603	98	>0.999	High	0.969	High
626	99	>0.999	High	0.984	High

**Table 6.**

*Grade 4 Probability of Advanced or Advanced High and Category Ranking by January ISIP Percentile*

ISIP Scale Score	Percentile	Advanced Probability	Advanced Probability Category	Advanced High Probability	Advanced High Probability Category
347	1	0.032	Low	<0.001	Low
374	2	0.099	Low	<0.001	Low
389	3	0.164	Low	0.001	Low
400	4	0.229	Low	0.002	Low
408	5	0.284	Low	0.004	Low
415	6	0.339	Medium	0.006	Low
421	7	0.389	Medium	0.008	Low
427	8	0.442	Medium	0.011	Low
431	9	0.478	Medium	0.014	Low
435	10	0.514	Medium	0.018	Low
439	11	0.550	Medium	0.022	Low
443	12	0.586	Medium	0.027	Low
446	13	0.613	Medium	0.031	Low
449	14	0.639	Medium	0.036	Low
452	15	0.664	High	0.041	Low
455	16	0.689	High	0.047	Low
458	17	0.712	High	0.054	Low
460	18	0.727	High	0.059	Low
463	19	0.749	High	0.067	Low
465	20	0.764	High	0.073	Low
467	21	0.777	High	0.079	Low
469	22	0.790	High	0.086	Low
472	23	0.809	High	0.097	Low
474	24	0.821	High	0.104	Low
476	25	0.832	High	0.113	Low
478	26	0.843	High	0.122	Low
479	27	0.848	High	0.126	Low
481	28	0.859	High	0.136	Low
483	29	0.868	High	0.146	Low
485	30	0.877	High	0.156	Low
487	31	0.886	High	0.168	Low



ISIP™ and TELPAS

488	32	0.890	High	0.173	Low
490	33	0.898	High	0.185	Low
492	34	0.906	High	0.198	Low
493	35	0.909	High	0.204	Low
495	36	0.916	High	0.218	Low
497	37	0.923	High	0.232	Low
498	38	0.926	High	0.239	Low
500	39	0.932	High	0.253	Low
501	40	0.934	High	0.261	Low
503	41	0.940	High	0.276	Low
504	42	0.942	High	0.284	Low
506	43	0.947	High	0.300	Low
507	44	0.949	High	0.308	Low
509	45	0.954	High	0.325	Low
510	46	0.956	High	0.334	Medium
512	47	0.960	High	0.351	Medium
513	48	0.961	High	0.360	Medium
515	49	0.965	High	0.378	Medium
516	50	0.967	High	0.387	Medium
518	51	0.970	High	0.405	Medium
519	52	0.971	High	0.414	Medium
521	53	0.974	High	0.432	Medium
522	54	0.975	High	0.442	Medium
524	55	0.977	High	0.460	Medium
525	56	0.979	High	0.470	Medium
527	57	0.981	High	0.489	Medium
528	58	0.982	High	0.498	Medium
530	59	0.983	High	0.517	Medium
531	60	0.984	High	0.526	Medium
533	61	0.986	High	0.545	Medium
534	62	0.987	High	0.554	Medium
536	63	0.988	High	0.572	Medium
537	64	0.989	High	0.581	Medium
539	65	0.990	High	0.599	Medium
541	66	0.991	High	0.617	Medium
542	67	0.991	High	0.625	Medium
544	68	0.992	High	0.643	Medium

ISIP™ and TELPAS

546	69	0.993	High	0.659	Medium
547	70	0.994	High	0.668	Medium
549	71	0.994	High	0.684	High
551	72	0.995	High	0.700	High
553	73	0.996	High	0.715	High
554	74	0.996	High	0.722	High
556	75	0.996	High	0.737	High
558	76	0.997	High	0.751	High
560	77	0.997	High	0.764	High
562	78	0.997	High	0.777	High
564	79	0.998	High	0.789	High
566	80	0.998	High	0.801	High
569	81	0.998	High	0.818	High
571	82	0.999	High	0.829	High
573	83	0.999	High	0.839	High
576	84	0.999	High	0.853	High
578	85	0.999	High	0.862	High
581	86	0.999	High	0.875	High
584	87	0.999	High	0.886	High
587	88	>0.999	High	0.897	High
590	89	>0.999	High	0.906	High
593	90	>0.999	High	0.915	High
597	91	>0.999	High	0.926	High
601	92	>0.999	High	0.935	High
606	93	>0.999	High	0.945	High
611	94	>0.999	High	0.954	High
616	95	>0.999	High	0.961	High
623	96	>0.999	High	0.970	High
632	97	>0.999	High	0.978	High
643	98	>0.999	High	0.985	High
661	99	>0.999	High	0.992	High

**Table 7.**

*Grade 5 Probability of Advanced or Advanced High and Category Ranking by January ISIP Percentile*

ISIP Scale Score	Percentile	Advanced Probability	Advanced Probability Category	Advanced High Probability	Advanced High Probability Category
366	1	0.068	Low	0.001	Low
395	2	0.189	Low	0.004	Low
411	3	0.296	Low	0.009	Low
423	4	0.393	Medium	0.016	Low
432	5	0.472	Medium	0.025	Low
439	6	0.534	Medium	0.035	Low
446	7	0.596	Medium	0.047	Low
451	8	0.638	Medium	0.057	Low
456	9	0.679	High	0.069	Low
461	10	0.718	High	0.083	Low
465	11	0.747	High	0.096	Low
469	12	0.774	High	0.110	Low
472	13	0.793	High	0.121	Low
476	14	0.817	High	0.138	Low
479	15	0.834	High	0.151	Low
482	16	0.849	High	0.165	Low
485	17	0.864	High	0.180	Low
487	18	0.873	High	0.190	Low
490	19	0.885	High	0.207	Low
492	20	0.893	High	0.218	Low
495	21	0.904	High	0.235	Low
497	22	0.911	High	0.248	Low
499	23	0.918	High	0.260	Low
501	24	0.924	High	0.273	Low
504	25	0.932	High	0.292	Low
506	26	0.937	High	0.306	Low
508	27	0.942	High	0.320	Low
510	28	0.947	High	0.334	Medium
512	29	0.951	High	0.348	Medium
513	30	0.953	High	0.355	Medium

ISIP™ and TELPAS

515	31	0.957	High	0.370	Medium
517	32	0.960	High	0.384	Medium
519	33	0.964	High	0.399	Medium
521	34	0.967	High	0.414	Medium
522	35	0.968	High	0.422	Medium
524	36	0.971	High	0.437	Medium
526	37	0.973	High	0.452	Medium
528	38	0.976	High	0.467	Medium
529	39	0.977	High	0.475	Medium
531	40	0.979	High	0.490	Medium
532	41	0.980	High	0.498	Medium
534	42	0.982	High	0.513	Medium
536	43	0.983	High	0.528	Medium
537	44	0.984	High	0.535	Medium
539	45	0.986	High	0.550	Medium
540	46	0.986	High	0.558	Medium
542	47	0.988	High	0.573	Medium
544	48	0.989	High	0.587	Medium
545	49	0.989	High	0.594	Medium
547	50	0.990	High	0.609	Medium
548	51	0.991	High	0.616	Medium
550	52	0.992	High	0.630	Medium
551	53	0.992	High	0.637	Medium
553	54	0.993	High	0.650	Medium
555	55	0.994	High	0.664	Medium
556	56	0.994	High	0.670	High
558	57	0.995	High	0.683	High
559	58	0.995	High	0.690	High
561	59	0.995	High	0.702	High
563	60	0.996	High	0.714	High
564	61	0.996	High	0.720	High
566	62	0.996	High	0.732	High
567	63	0.997	High	0.738	High
569	64	0.997	High	0.749	High
571	65	0.997	High	0.760	High
573	66	0.998	High	0.771	High

## ISIP™ and TELPAS

574	67	0.998	High	0.776	High
576	68	0.998	High	0.786	High
578	69	0.998	High	0.796	High
580	70	0.998	High	0.805	High
581	71	0.998	High	0.810	High
583	72	0.999	High	0.818	High
585	73	0.999	High	0.827	High
587	74	0.999	High	0.835	High
589	75	0.999	High	0.843	High
591	76	0.999	High	0.851	High
593	77	0.999	High	0.858	High
595	78	0.999	High	0.865	High
597	79	0.999	High	0.872	High
600	80	0.999	High	0.881	High
602	81	>0.999	High	0.887	High
604	82	>0.999	High	0.893	High
607	83	>0.999	High	0.901	High
610	84	>0.999	High	0.908	High
612	85	>0.999	High	0.913	High
615	86	>0.999	High	0.920	High
618	87	>0.999	High	0.926	High
621	88	>0.999	High	0.932	High
625	89	>0.999	High	0.939	High
629	90	>0.999	High	0.945	High
633	91	>0.999	High	0.951	High
637	92	>0.999	High	0.956	High
642	93	>0.999	High	0.962	High
647	94	>0.999	High	0.967	High
653	95	>0.999	High	0.972	High
661	96	>0.999	High	0.978	High
670	97	>0.999	High	0.983	High
682	98	>0.999	High	0.988	High
702	99	>0.999	High	0.993	High

## Discussion

These results demonstrate that ISIP scores can be used to predict student performance on the end-of-year TELPAS assessment. This gives critical information to educators and administrators and allows for customized solutions, as ISIP gives domain-specific information about a student's performance. These results show that students need to have a high level of proficiency in English to reach the Advanced High category on the TELPAS. For example, grade 2 students at the 23rd percentile on ISIP Reading will have a probability of .51 of reaching Advanced, but to have a greater than .50 probability for Advanced High, they need to be at or above the 89th percentile. Students in grade 3 have a .50 probability of reaching Advanced at the 8<sup>th</sup> percentile but need to be at the 61st percentile to have a .50 or greater probability of reaching Advanced High. This demonstrates that the state of Texas set a high bar of performance for students to reach the Advanced High category of language proficiency.

Teachers can use the information provided by ISIP to strengthen a student's ability in areas where they need more support. Additionally, the Istation curriculum can be used to address these areas. Our previous research shows that time spent using the Istation computer adaptive curriculum in Spanish and English can improve student performance on the TELPAS (Locke et al., 2022).

## Limitations

While this study does confirm a strong relationship between the TELPAS and ISIP Reading scores, it is unclear to what extent these results may generalize to other school districts. Typically, beginning English learners do not take ISIP Reading in this school district, which skewed the sample toward already higher performing students. Further, these data came from a large urban school district. Relationships between the TELPAS and ISIP may differ in other settings, such as more rural districts. However, the effects demonstrated in this study are large and significant, so while the strength of the

relationship between TELPAS and ISIP scores may weaken in other settings, ISIP should still have some ability to predict TELPAS performance. Finally, these data are from the 2017–2018 school year, and the relationship between these two assessments may differ in post-pandemic settings.

### **Future considerations**

A more thorough sample of Texas districts and students would produce a better understanding of the predictive power of ISIP for TELPAS scores. More research is needed to examine the relationship between these assessments in rural and suburban school districts. This would provide a more complete, robust, and reliable picture of the utility of ISIP in predicting TELPAS scores. Moreover, data collected from after the pandemic could and should be used to show differences in student performance in both ISIP and TELPAS. Our previous research has shown that students who used Istation in the spring of 2020 had significantly less COVID-related learning loss than students who did not (Lewis et al., 2020). This research should be extended to determine whether Istation’s curriculum and assessment tools help foster learning recovery in students adversely impacted by the pandemic.

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