

# Summary of the Predictive Relationship between the FAIR and the FCAT in Grades 3-10:

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The FAIR was administered throughout the state of Florida to approximately 1.5 million students in grades 3-10 in the fall, winter, and spring portions of the 2010-2011 school year. The purpose of this report is two-fold: 1) to describe the general relationship between the FAIR and the FCAT and 2) to address the screening accuracy of the FAIR (e.g., how well does FAIR predict FCAT risk status?). In order to appropriately describe the relationships, it was imperative to describe the extent to which the sample of students with FAIR and FCAT scores were reflective of the state demographics and ability in the population. Our review of the data indicated that the demographic characteristics of the sample appropriately characterized the population. Similarly, when comparing the prior FCAT achievement levels of the sample to the population using data from the Bureau of K-12 Assessment website (<http://fcat.fldoe.org/>), the results indicated that the sample of students with FAIR and FCAT closely matched the ability distributions across the state. This suggests that students tested with FAIR and FCAT were representative of the overall population in the public schools in Florida.

The first research question studied was the relationship between FAIR and FCAT scores across grades at the fall, winter, and spring assessments. Two separate correlations were estimated to address this question: 1) the correlation between the FAIR FSP and FCAT and 2) the correlation between the FAIR Reading Comprehension screen (hereafter referred to as RC screen) with the FCAT. This second correlation was done to demonstrate how well the RC screen individually predicts FCAT performance. Results are reported in Table 1.

Table 1: Correlations between the FCAT and both RC Screen and FSP

Grade	Fall		Winter		Spring	
	RC Screen	FSP	RC Screen	FSP	RC Screen	FSP
3	.64	.62	.75	.73	.78	.76
4	.66	.75	.73	.76	.76	.77
5	.69	.78	.75	.78	.76	.79
6	.70	.75	.72	.75	.74	.75
7	.71	.75	.72	.75	.73	.75
8	.70	.75	.71	.75	.72	.75
9	.69	.73	.69	.73	.70	.73
10	.67	.74	.67	.74	.67	.74

The correlations across each grade demonstrated strong relationships between the RC Screen and FCAT, as well as between FSP and FCAT. As expected, the FSP correlation with FCAT was stronger than the relationship between RC screen with FCAT in grades 4-10 because the prior FCAT score was included in the calculation of FSP. The correlations indicated that both score types strongly predict to end of the year FCAT performance.

The second question addressed the extent to which FSP scores greater or equal to 0.85 (green zone) at each assessment period corresponded to passing the FCAT. Results are presented in Table 2.

Table 2: Screening Accuracy of the FAIR predicting FCAT success

Grade	Fall		Winter		Spring		% < Level 3 FCAT
	FSP = 0.85	FSP = 0.70	FSP = 0.85	FSP = 0.70	FSP = 0.85	FSP = 0.70	
3	.99	.99	.99	.99	.99	.99	28
4	.95	.97	.98	.97	.98	.96	31
5	.98	.95	.98	.94	.98	.94	33
6	.98	.95	.98	.96	.98	.95	40
7	.97	.92	.97	.92	.97	.92	38
8	.92	.82	.92	.82	.91	.81	51
9	.95	.88	.95	.87	.95	.87	59
10	.90	.80	.91	.81	.91	.80	69

Across all assessment periods and grades, more than 90% of students who obtained an FSP of at least 0.85 at any time point passed the FCAT at level 3 or above. A secondary analysis of the predictive power of the FSP used a cut-point of 0.70. At this level of proficiency (yellow zone), a strong prediction of FCAT success still existed. The results from these analyses lend support for the continued use of the FAIR RC screen as a tool to identify students throughout the year who are likely to pass the FCAT.