

# Preschool Early Literacy Indicators (PELI®) Benchmark Goals and Composite Score

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## Benchmark Goals

PELI *benchmark goals* are empirically derived, criterion-referenced target scores that represent adequate early literacy progress for students in preschool. A benchmark goal indicates a level of skill where the student is likely to achieve the next PELI benchmark goal or early literacy outcome. Benchmark goals for PELI are based on research that examines the predictive validity of a score on a measure at a particular point in time, compared to later PELI measures and compared to external outcome assessments. If a student achieves a benchmark goal, then the odds are in favor of that student achieving later early literacy outcomes if he/she receives generally effective instructional support and learning opportunities.

## Benchmark Goal Research

These PELI benchmark goals, cut points for risk, and Composite Scores were developed based upon a study conducted during the 2013–2014 school year. The goals represent a series of conditional probabilities of meeting later important early literacy outcomes. Two outcome criteria were used to develop and evaluate the benchmark goals and cut points for risk: (a) the Peabody Picture Vocabulary Test-4 raw score (PPVT-4; Dunn & Dunn, 2007); and (b) Dynamic Indicators of Basic Early Literacy Skills, Next Edition (Good, Kaminski, et al., 2010), kindergarten, beginning of year, Composite Score (DIBELS). The 40th percentile on the PPVT-4 assessment was used as an indicator that the student was making adequate progress in acquisition of important early literacy skills. Data for the study were collected in 106 schools in 16 U.S. states and one Canadian province. Data collection included administering the PELI measures to participating 3/4 year old students and 4/5 year old students. A subgroup of 4/5 year old students also were administered the PPVT-4 and DIBELS kindergarten, beginning of year assessments. Participants in the study were 3,233 students across general education classrooms who were receiving English instruction, including students with disabilities and students who were English language learners provided they had the response capabilities to participate. The study included both students who were struggling in early literacy and those who were typically achieving. A subset of the total sample participated in the PPVT assessment (n = 156). Additional information about the study will be included in a technical adequacy chapter of the *PELI Assessment Manual*, which will be available in the future.

## Cut Points for Risk

The cut points for risk indicate a level of skill below which the student is unlikely to achieve subsequent early literacy goals without receiving additional, targeted instructional support. Students with scores below the cut point for risk are identified as likely to need intensive support. Intensive support refers to interventions that incorporate something more or something different from the core curriculum or supplemental support. Intensive support might entail:




- delivering instruction in a smaller group,
- providing more instructional time or more practice,
- presenting smaller skill steps in the instructional hierarchy,
- providing more explicit modeling and instruction, and/or
- providing greater scaffolding and practice

Because students needing intensive support are likely to have individual and sometimes unique needs, we recommend that their progress be monitored more frequently and their intervention modified dynamically to ensure adequate progress. For PELI, conducting progress monitoring assessment monthly may be appropriate for students who are likely to need intensive instructional support.

Between a benchmark goal and a cut point for risk is a range of scores where the student’s future performance is harder to predict. To ensure that the greatest number of students achieve later early literacy success, it is best for students with scores in this range to receive carefully targeted additional support in the skill areas where they are having difficulty, to be monitored regularly to ensure that they are making adequate progress, and to receive increased or modified support if necessary to achieve subsequent early literacy goals. This type of instructional support is referred to as strategic support. For students who are likely to need strategic support, PELI progress monitoring monthly or bi-monthly may be appropriate.

Table 1 provides the target or design odds of achieving later early literacy outcomes and the corresponding labels for likely need for support for each of the score levels. Benchmark goals and cut points for risk are provided for the PELI Composite Score as well as for individual PELI measures.

**Table 1. Odds of Achieving Subsequent Early Literacy Goals, PELI Benchmark Goal Levels, and Likely Need for Support**

Odds of achieving subsequent early literacy goals	Visual Representation	PELI Score Level	Likely need for support to achieve subsequent early literacy goals
80% to 90%		At or Above Benchmark <i>scores at or above the benchmark goal</i>	Likely to Need Core Support
40% to 60%		Below Benchmark <i>scores below the benchmark goal and at or above the cut point for risk</i>	Likely to Need Strategic Support
10% to 20%		Well Below Benchmark <i>scores below the cut point for risk</i>	Likely to Need Intensive Support

## PELI Composite Score

The PELI Composite Score is a combination of multiple PELI scores and provides the best overall estimate of the student’s early literacy skills. The DIBELSnet data management service will calculate the PELI Composite Score for you. The PELI Composite Score (PCS) is calculated using the following formula:

$$PCS=(2*AK)+(4*Comp)+(4*PA)+(3*VOL)$$

PCS=PELI Composite Score; AK=Alphabet Knowledge Total Score; Comp=Comprehension Total Score; PA=Phonological Awareness Total Score; VOL=Vocabulary/Oral Language Total Score.

The purpose of the calculation is to weight the scores for each section so that they contribute approximately equally to the Composite Score. DIBELSnet will automatically calculate the Composite Score.

Benchmark goals and cut points for risk for the PELI Composite Score are based on the same logic and procedures as the individual PELI measures; however, since the PELI Composite Score provides the best overall estimate of a student’s skills, the PELI Composite Score should generally be interpreted first. If a student is at or above the benchmark goal on the PELI Composite Score, the odds are in the student’s favor of reaching later important early literacy outcomes. Some students who score at or above the PELI Composite Score benchmark goal may still need additional support in one of the basic early literacy skills, as indicated by a below benchmark score on an individual PELI measure (Alphabet Knowledge, Comprehension, Phonological Awareness, or Vocabulary and Oral Language), especially for students whose composite score is close to the benchmark goal.

## PELI Language Index

The PELI Language Index combines the Vocabulary-Oral Language and Comprehension scores and is a better indicator of overall language skill. The Language Index is calculated by applying the same multipliers used to weight the Vocabulary-Oral Language and Comprehension scores for the Composite Score.

## References

Good, R. H., Kaminski, R. A. Cummings, K., Dufour-Martel, C., Petersen, K., Powell-Smith, K. Stollar, S., & Wallin, J. (2010). *Dynamic Indicators of Basic Early Literacy Skills, Next Edition*. Longmont, CO: Sopris. Available: <http://dibels.org/>.

Dunn, L. M., & Dunn, D. M. (2007). *Peabody Picture Vocabulary Test, 4th Edition*. Minneapolis, MN: Pearson Assessments.

## 2015–2016 PELI Benchmark Goals and Cut Points for Risk

### PELI Benchmark Goals and Cut Points for Risk for 4-and-5-year olds

Time of year/ Measure	Benchmark goal	Cut point for Risk
Beginning of year		
Alphabet knowledge	6	2
Phonemic awareness	4	1
Comprehension	13	10
Vocabulary/Oral Language	18	13
PELI Language Index	114	88
PELI Composite Score	159	115
Middle of year		
Alphabet knowledge	17	8
Phonemic awareness	10	4
Comprehension	16	12
Vocabulary/Oral Language	21	16
PELI Language Index	132	111
PELI Composite Score	201	160
End of year		
Alphabet knowledge	23	14
Phonemic awareness	13	9
Comprehension	17	14
Vocabulary/Oral Language	23	19
PELI Language Index	143	124
PELI Composite Score	231	195

**Note.** Goals and cut points were revised in June 2015.

PELI Benchmark Goals and Cut Points for Risk for 3-and-4-year olds

Time of year/ Measure	Benchmark goal	Cut point for Risk
Beginning of year		
Alphabet knowledge	1	0
Phonemic awareness	--	--
Comprehension	6	2
Vocabulary/Oral Language	8	4
PELI Language Index	62	33
PELI Composite Score	68	35
Middle of year		
Alphabet knowledge	3	1
Phonemic awareness	1	0
Comprehension	10	5
Vocabulary/Oral Language	12	6
PELI Language Index	87	50
PELI Composite Score	101	59
End of year		
Alphabet knowledge	5	2
Phonemic awareness	2	0
Comprehension	11	7
Vocabulary/Oral Language	14	8
PELI Language Index	100	59
PELI Composite Score	128	85

**Note.** Goals and cut points were revised in June 2015.