



Figure 1. Constructs Measured

SEED Constructs Assessed By Grade

Grade	3	4	5	6	7	8	11
Access to Learning Resources	X	X	X	X	X	X	X
Opportunity to Learn*	X	X	X	X	X	X	X
Self-Efficacy Beliefs*	X	X	X	X	X	X	X
Sense of Belonging	X	X	X	X	X	X	X
Well-Rounded Education	X	X	X				
Career-Technical Education				X	X	X	X
Extra-Curricular Engagement				X	X	X	X
Post-Graduation Planning							X

**Note: OTL and Self-Efficacy focus on ELA in Grades 3 & 6, math in Grades 4 & 7, and Science in Grades 5 & 8. The high school survey includes all three of these content areas.*

Figure 2. Constructs Measured by Grade and Subject

Domain Definitions, Sample Items, and Rationale for Inclusion

Brief definitions of each domain, sample items, and rationale for inclusion in the survey are provided in Table 1. Research supporting the inclusion of each domain and descriptions of the experiences of other educational organizations are cited in Appendix A. For the complete set of items included in the 2020-21 pilot administration, see the PDF copies of the SEED Surveys on the Assessment Team's [SEED Survey webpage](#).

Domain	Item Example	Rationale
<p>Access to Learning Resources - Resources necessary to allow students to access instruction</p>	<p><i>Stem:</i> The next questions will ask about the things that help you with your school work. Please read each question carefully. Choose the answer that is true for you. How available were these to help you with your school work?</p> <p><i>Example Items:</i></p> <ul style="list-style-type: none"> • Internet or Wi-Fi • Computer or tablet • A quiet place to study • Adult, sibling, or friend 	<p>There is a consistent and meaningful association between access to learning resources (i.e., the learning resources available to students in their homes and/or communities) and student outcomes.</p>
<p>Opportunity to Learn - Student's exposure to classroom opportunities, activities, and specific content which facilitate learning</p>	<p><i>11th grade ELA</i></p> <p><i>Stem:</i> Think about what you did in your high school English/language arts classes. How often did you do the following when you read a story, article, or book?</p> <p><i>Example Items:</i></p> <ul style="list-style-type: none"> • Summarize the text • Critique the author's writing style • Analyze the author's organization of information in the text 	<p>As part of the ESSA workgroups in 2015-16, community and education partners requested ODE to collect and report opportunity to learn data. This information is particularly important to contextualize academic outcomes (e.g., achievement).</p>
<p>Self-Efficacy Beliefs - A student's self-appraisal of their ability to perform tasks relating to a specific content area</p>	<p><i>5th Grade Science</i></p> <p><i>Stem:</i> Think about what you learned in your elementary school science classes over the last three years. How sure are you about doing each of the following?</p>	<p>Self-efficacy beliefs are malleable in educational settings and have a meaningful association with student motivation, behavior, and academic outcomes (e.g., achievement).</p>

Domain	Item Example	Rationale
	<p><i>Example Items:</i></p> <ul style="list-style-type: none"> • I can describe different ways to heat or cool water. • I can use models to describe where animals get their energy from. 	
<p><i>Sense of Belonging</i> - A student's feeling of identity, inclusion, and acceptance as a member of their school community</p>	<p><i>Administered in Grades 3-8 & 11</i> <i>Stem:</i> Think about this school year and the people at your school. How much do you agree with each statement?</p> <p><i>Example Items:</i></p> <ul style="list-style-type: none"> • I have friends at school • I have classmates who look like me • There are adults at my school who really care about me • There are adults at my school who look like me 	<p>Similar to self-efficacy beliefs, sense of belonging is malleable in educational settings. Sense of belonging has a meaningful association with psychological constructs (e.g., motivation, behavior, social-emotional competencies) and academic outcomes (e.g., attendance, achievement, high school graduation).</p>
<p><i>Well-Rounded Education</i> - A student's access to classes from a wide variety of disciplines, including the arts, music, health, humanities, physical education, social science, in addition to ELA, math, and science</p>	<p><i>Administered in Grades 3-5</i> <i>Stem:</i> Think about this school year.</p> <p><i>Example Items</i></p> <ul style="list-style-type: none"> • How often did you have an art lesson? • How often did you have a music lesson? • How often did you have PE or physical education? 	<p>As part of the ESSA workgroups in 2015-16, community and education partners requested ODE to collect and report data pertaining to student access to a well-rounded education.</p>
<p><i>Career/Technical Education</i> - The resources and opportunities available in schools that help students connect learning to careers, develop technical skills and knowledge, and prepare for post-secondary education and careers</p>	<p><i>Administered in Grades 6-8 & 11</i> <i>Stem:</i> Think about this school year. How often did you do the following things?</p> <ul style="list-style-type: none"> • Connect what you are learning in your classes to potential career opportunities. • Speak with a counselor or teacher at your school about career opportunities. 	<p>As part of the ESSA workgroups in 2015-16, community and education partners requested ODE to collect and report data pertaining to career/technical education. This information is particularly important for specific initiatives within ODE (e.g., high school success). Participation in career/technical education has a meaningful association with academic</p>

Domain	Item Example	Rationale
	<ul style="list-style-type: none"> Use the internet to gather information about careers. 	outcomes (e.g., attendance, high school graduation).
<p>Extracurricular Engagement - The opportunities and activities available to students in their schools and communities that foster meaningful connections to life, culture, and learning</p>	<p><i>Administered in Grades 6-8 & 11</i> <i>Stem:</i> Think about the events and activities that take place at your school. <i>Example Item</i></p> <ul style="list-style-type: none"> I regularly attend events sponsored by my school (such as school dances, sporting events, student concerts). 	As part of the ESSA workgroups in 2015-16, community and education partners requested ODE to collect and report data pertaining to extracurricular engagement. This information is particularly important for specific initiatives within ODE (e.g., everyday matters, high school success). Extracurricular engagement has a meaningful association with student motivation and academic outcomes (e.g., attendance, achievement, high school graduation).
<p>Post-graduation Planning - The opportunities a student is considering in the first year after high school</p>	<p><i>Administered in Grade 11</i> <i>Stem:</i> Are you considering any of the following during the year after high school? <i>Example Items</i></p> <ul style="list-style-type: none"> Career, technical, or trade school 2-year college/community college 4-year college/university Military service Employment 	As part of the ESSA workgroups in 2015-16, community and education partners requested ODE to collect and report data pertaining to the plans student have for post-high school. This information is particularly important for specific initiatives within ODE (e.g., high school success) and other state agencies (e.g., Higher Education Coordinating Commission).

Table 1. Domain Definitions, Sample Items, and Rationale for Inclusion

SEED Survey Blueprint

The number of items by domain and grade is provided in Table 2. The 2020-21 administration is designed to balance considerations of scale reliability, domain and content area coverage, and reasonable student response time. It is anticipated that the amount of student time needed will be approximately 10-20 minutes in Grades 3-5 and approximately 20-30 minutes in Grades 6-8 & 11.

Because the 2020-21 version of the survey will undergo a variety of item quality reviews and other psychometric checks, the blueprint may change in future years.

Grade	Domain	Number of Items
3	Access to Learning Resources	14
	Opportunity to Learn—Language Arts	6
	Self-Efficacy Beliefs—Language Arts	6
	Sense of Belonging	13
	Well-Rounded Education	3
4	Access to Learning Resources	14
	Opportunity to Learn—Mathematics	12
	Self-Efficacy Beliefs—Mathematics	9
	Sense of Belonging	13
	Well-Rounded Education	3
5	Access to Learning Resources	14
	Opportunity to Learn—Science	14
	Self-Efficacy Beliefs—Science	8
	Sense of Belonging	13
	Well-Rounded Education	3
6	Access to Learning Resources	14
	Opportunity to Learn—Language Arts	12
	Self-Efficacy Beliefs—Language Arts	6
	Sense of Belonging	13
	Career-Technical Education	3
	Extra-Curricular Engagement	6
	Other (open-ended)	1
7	Access to Learning Resources	14
	Opportunity to Learn—Mathematics	13
	Self-Efficacy Beliefs—Mathematics	10
	Sense of Belonging	13
	Career-Technical Education	3
	Extra-Curricular Engagement	6
	Other (open-ended)	1
8	Access to Learning Resources	14
	Opportunity to Learn—Science	18
	Self-Efficacy Beliefs—Science	10
	Sense of Belonging	13
	Career-Technical Education	3
	Extra-Curricular Engagement	6
	Other (open-ended)	1
11	Access to Learning Resources	14
	Opportunity to Learn—Language Arts	17
	Opportunity to Learn—Mathematics	14

Grade	Domain	Number of Items
	Opportunity to Learn—Science	18
	Self-Efficacy Beliefs—Language Arts	10
	Self-Efficacy Beliefs—Mathematics	12
	Self-Efficacy Beliefs—Science	9
	Sense of Belonging	13
	Career-Technical Education	7
	Extra-Curricular Engagement	6
	Post-Graduation Planning	9
	Other (open-ended)	1

Table 2. SEEDS Blueprint for 2020-21 Pilot Administration

SEEDS Development Process

The constructs measured on the SEED Survey are informed by survey design approaches taken by several established national and international measures, including the following:

- National Assessment of Educational Progress ([NAEP](#)) - mathematics, reading, science and writing are most often reported in Grades 4 & 8, with various subjects in Grade 12;
- Trends in International Mathematics and Science Study ([TIMSS](#)) - mathematics and science in grades 4 & 8, last administered in 2019,
- Program for International Student Assessment ([PISA](#)) - reading, math, and science assessment of 15-year-olds every three years, last administered in 2018; and,
- Progress in International Reading Literacy Study ([PIRLS](#)) - reading, administered to 4th Graders every five years, last administered in 2016.

ODE also reviewed items and constructs from the following sources. Use of each set of resources is identified with each grouping below:

Reviewed Items

- ED School Climate Surveys (EDSCLS)
- Early Childhood Longitudinal Survey (ECLS)
- Education Longitudinal Study (ELS) of 2002
- High School Longitudinal Study (HSL) of 2009
- International Civic and Citizenship Education Study (ICCS)
- Oregon Student Health Survey 2020 (6th, 8th, and 11th)

Reviewed Constructs and Technical Features (not items)

- Panorama Education school climate surveys
- PBIS school climate survey suite
- GLSEN National School Climate Survey
- Youth Truth student surveys

Reviewed Items, Constructs, and Technical Features (did not use items)

- Portland Public School's 2018-19 successful schools and SEL surveys

- Beaverton School District 2018-19 elementary, middle, and high school student surveys
- Iowa City Public SD school climate survey
- Panorama Equity and Inclusion Survey
- California’s Core Districts social-emotional learning and school culture survey
- Program for International Assessment of Adult Competencies (PIAAC)
- Southern and Eastern African Consortium for Monitoring Educational Quality (SACMEQ)
- Young Lives International Study of Childhood Poverty
- World bank Living Standards Measurement Studies (LSMS)

The SEED Surveys include constructs, original and modified open-sourced items, and items that have been developed by ODE staff pursuant to education and community partner engagement meetings. The following education and community partners were involved in vetting the survey design and item types:

- December 4, 2020 - The Confederated Tribes of Grand Ronde Education Team
- December 11, 2020 - Oregon Education Association members
- December 16, 2020 - All Hands Raised
- December 16, 2020 - Oregon Parent Teacher Association
- December 17, 2020 - Oregon Student Voice
- January 21, 2021 - Oregon State Board
- January 21-29, 2021 - Fairness and Sensitivity Review (Panels convened online representing Oregon students, educators, and community members)¹

Recommendations and comments from the groups listed above were synthesized by ODE Assessment, Research, and Accountability staff during the period February 1-###, resulting in edits to survey items to make them more accessible to students and to increase their clarity and specificity. In some cases earlier reviews resulted in the addition of constructs to be measured.

Following the pilot administration of the survey in Spring 2021, an interpretive panel will be convened to review survey data and identify further needs for revision to improve validity, reliability, and fairness of proposed survey interpretations. The interpretive panel will recommend findings and conclusions that are supported by data at a statewide level. Data from the pilot administration in Spring 2021 will *not be publicly reported at the school or district level*, due to the developmental stage of the measures.

Administration, Research, and Future Uses

- *Survey administration*

The SEED Survey administration expectations, as well as student accessibility supports, are established in the [SEED Survey User Guide](#).

- *Analysis plan*

Upon completion of the SEEDS pilot administration in June 2021, several analyses will be conducted to support the work of the interpretive panel. First, descriptive statistics and

¹ See Appendix B for the criteria used by the Fairness and Sensitivity Panels.

graphic displays will be produced to examine the raw student responses. Questions asked at this stage include: Are the data reasonable? Do response frequencies resemble results from similar student surveys? Are there categories that were under- or over-used? Have there been any errors in data processing or transfer?

Second, relationships among item responses will be examined. This step is similar to item analysis for achievement tests. For items intended to measure the same construct, such as Sense of Belonging, the responses of each student are expected to be correlated. To the extent that “item to total construct” correlations are lower than usual, the question may be worded confusingly, vaguely (or too specifically), or use unfamiliar vocabulary and difficult syntax. This analysis phase is intended to identify flaws that may result in exclusion of the item from reporting.

Third, the “dimensionality” of the survey constructs will be confirmed. Generally it is desirable to form scales based on responses to several items that get at the same concept. The scaling process is intended to capture the general construct by combining answers to specific questions that students can answer objectively. The scaling process also increases the reliability and precision of the measure, compared to a single item. Of course, to the extent that an item is *intended* to elicit unique information, such as the opportunity to learn a specific skill, the scaling step may be unwarranted or undesirable.

Fourth, after the quality control and dimensionality steps are completed, items will be examined for possible fairness issues. Differential item functioning (DIF) examines differences in item response probabilities by different demographic groups (e.g., gender, race/ethnicity, English proficiency, disability) conditioned on the same level of the underlying construct. Evidence of DIF does not necessarily mean an item is biased in favor of one group over another; rather, it serves as the starting point for thorough review of item wording from the perspective of the ODE fairness and sensitivity criteria cited earlier. Items may be dropped from the survey due to reviewer confirmation of a fairness issue.

Fifth, cognitive lab interviews will be conducted with samples of students in both English and Spanish versions of the survey. While this step ideally would have occurred prior to pilot deployment, cog labs are best conducted in person, which was not possible. On the other hand, the analyses described above will help to identify items that may need to be revised with the help of student think-aloud procedures.

Finally, Oregon’s Technical Advisory Committee will be asked to weigh in on the results of the analyses described above and suggest additional analyses and survey revisions. The SEEDS administration during 2021-22 will enable analysis with concurrent achievement measures. The conceptual model shown in Figure 1 will be tested for its utility in combining a broad spectrum of school resource and practice measures to improve instruction and reach Oregon’s equity goals. Additional feedback will be requested from focus groups of teachers, administrators, policymakers and community members.

- *Reporting plan*

As mentioned at the beginning, the primary purpose of the Student Educational Equity Development Survey is to support instructional program improvement. The survey is intended for use by educators at the school or district level in a collegial manner to examine a broad array of factors that support student learning and determine the need for changes in instructional program resources and practices and to design strategies for supporting students and families.

To this end, the SEEDS data will be reported at a level of detail that conveys actionable information at the school/grade level or higher, with disaggregation on the basis of race/ethnicity, disability, English proficiency, and economic disadvantage. Constructs will not be combined into an overall “quality index” or similar summary. The pilot results in 2020-21 are expected to be incomplete and thus not intended as a generalizable public-facing statewide measure.² ODE anticipates incomplete and non-random sampling of districts, schools, and students within schools.³ For the purposes of pilot survey development, it is likely that a volunteer sample will suffice. Year-specific reporting plans (subject to change) are as follows:

Reporting from the Spring 2021 Pilot

- A technical report describing the pilot administration will include extant state level summary data, by the following student groups: race/ethnicity, special education status, English learner status, and Free-reduced price lunch eligibility. The technical report will include results of the analyses described in the previous section and plans for adjustments in 2021-22. Interpretive cautions with respect to generalizability of the state level data will be emphasized.
- Summary data for districts and schools will be securely (but not publicly) shared with districts, with protections for minimum n-sizes maintained.

Reporting from the 2022-23 Administration and Beyond

- The SEEDS component of the Oregon Statewide Assessment System is designed to contextualize and describe the conditions of learning for the purpose of instructional program improvement. The SEEDS fits within a broader theory of action that privileges local capacity-building over public accountability.
- A technical report following the 2022-23 administration will incorporate the additional achievement measures. Complete participation of schools and districts will enable multilevel modeling to identify sources of variance at school, district, and state levels. Concurrent relationships with other surveys (e.g., NAEP

² The Department may propose an administrative rule for state Board adoption to require SEEDS administration in 2021-22 and beyond.

³ The completeness of student sampling within schools, disaggregated by demographic/program group, will be examined by comparing survey responses with the 3rd period ADM collection.

Educator Survey, Healthy Teen Survey, possible district survey partnerships) will be used as a source of external validity information at the school level. The SEEDS data in combination with same-student achievement measures also will support internal validity analyses.

- Decisions about public reporting at the school and district level will depend on discussions with education and community partners.

Appendix A

Research and Experience Related to SEED Survey Development

Access to Learning Resources

- Anders, Y., et al. (2012). Home and preschool learning environments and their relations to the development of early numeracy skills. *Early Childhood Research Quarterly*, 27(2), 231-244. <https://doi.org/10.1016/j.ecresq.2011.08.003>
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Opportunity to Learn

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Sense of Belonging

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Appendix B

ODE Sensitivity Review Guidelines

OREGON DEPARTMENT OF EDUCATION*
OFFICE OF ASSESSMENT AND EVALUATION
SENSITIVITY REVIEW GUIDELINES
SALEM, OR 97310-0201

It is not the intent of the panel to discourage the teaching of controversial issues or issues which bring forth strong emotion. However, since there can be no teacher intervention during the testing process, there are certain items that need to be avoided.

1. Gender Considerations

- a. Does the material favor one gender over others?
- b. Does the material present a stereotype of genders?
- c. Does the material use language, content, or context that may be offensive to a gender or genders?
- d. Does the material use language, content or context that is not accessible to or is not widely familiar to a gender?

2. Race/Ethnic/Cultural Considerations

- a. Is the material inclusive of a variety of racial, ethnic and cultural groups?
- b. Does the material portray *or* trivialize one or more racial, ethnic, or cultural groups in a derogatory manner?
- c. Does the material use language, content, or context that is derogatory towards one or more ethnic groups?
- d. Does the material use language, content, or context that is not accessible or not widely familiar to one or more racial, ethnic or cultural groups?
- e. Does the material minimize or exclude the contributions of People of Color?

3. Religious Considerations

- a. Is the material inclusive of a variety of religions?
- b. Does the material demean religion(s)?
- c. Does the material portray one or more religions or religious leaders in a pejorative or stereotypic manner?
- d. Does the material use language, content, or context that is derogatory towards one or more religions?

- e. Does the material use language, content, or context of a religious nature that is not accessible to or not commonly understood?
- f. Does the material require the parent, teacher, or test taker to support a position that is contrary to their religious beliefs or teachings?

* The Department of Education Office of Assessment and Evaluation wishes to express its appreciation to the Education Department of the State of New York for the model used in creating these Sensitivity Review Guidelines

4. Age Considerations

- a. Does the material favor one age group over others except in a context where experience or maturation is relevant?
- b. Does the material portray one or more age groups in a pejorative or stereotypic manner?
- c. Does the material use language, content, or context that is derogatory towards one or more age groups?
- d. Does the material use language, content, or context that is not accessible to one or more age groups testing?

5. Disability Considerations

- a. Does the material degrade people on the basis of physical appearance or physical, mental, cognitive, or emotional challenge?
- b. Does the material focus on a disability rather than portraying the person with a disability?
- c. Does the material use language, content or context that is offensive to a person with a disability(-ies)?
- d. Does the material make assumptions about what a person with a disability(-ies) can or cannot do?
- e. Does the material suggest how a person with a disability(-ies) feels about their disability(-ies)?

6. Socio Economic Considerations

- a. Does the material suggest that affluence is related to merit or intelligence?
- b. Does the material suggest that socioeconomic status is related to ambition?
- c. Does the material use language, content or context that is derogatory toward a person's economic status?
- d. Does the material favor one socioeconomic group over another?
- e. Is a particular group stereotyped as belonging to a specific socioeconomic status?
- f. Does the material romanticize or demean people based on socioeconomic status?

7. General Considerations

- a. Does the material trivialize tragic human experiences?
- b. Does the material require a student to take a position that questions authority?
- c. Does the material present violence gratuitously, disproportionately, or in an overly graphic manner?
- d. Does the material assume that the test taker has experience with a certain type of family structure?

- e.** Does the material present inflammatory or highly controversial themes (e.g. death, wars, abortions, euthanasia) except where they are needed to meet State Content Standards
- f.** Does the material assume values not shared by all test takers?
- g.** Does the material present sexual innuendoes?
- h.** Does the material degrade people or cultures from certain regions of the country or state?
- i.** Does the material accept or fail to denounce criminal, illegal, or dangerous behavior?
- j.** Does the material require test takers to disclose a value(s) that they would rather hold confidential?
- k.** Does the material use context or setting that may be differentially interesting or familiar?
- l.** Does the material contain harmful language related to gender and/or sexual orientation?
- m.** Could the material unintentionally evoke negative emotions or harmful reactions?
- n.** Does the material show disrespect for leaders of other countries (e.g. effigy, satirical cartoon)?