



**ACCUPLACER<sup>®</sup>**

---

# ACCUPLACER<sup>®</sup> Suite of Assessments Technical Manual Appendix

**April 2019**

# List of Appendices

- 1 **Appendix A: Scoring Rubrics - WritePlacer and WritePlacer ESL**
- 8 **Appendix B: Text Complexity (Qualitative) - Reading and Writing**
- 10 **Appendix C: Skills Insight**
- 14 **Appendix D: ACCUPLACER ESL Tests - Proficiency Statements**
- 16 **Appendix E: Statistical Characteristics of ACCUPLACER Test Question Pools**

## APPENDIX A

# Scoring Rubrics - WritePlacer and WritePlacer ESL

## WritePlacer Scoring Rubric

Test takers are asked to provide a writing sample of 300 to 600 words in response to a prompt. The essay is electronically scored, and a holistic score ranging from 1 to 8 is reported along with one of the statements below.

Score	WritePlacer Holistic Score Descriptions
8	The essay demonstrates <i>clear and consistent mastery</i> of on-demand essay writing.
7	The essay demonstrates <i>consistent mastery</i> of on-demand essay writing.
6	The essay demonstrates <i>reasonably consistent mastery</i> of on-demand essay writing.
5	The essay demonstrates <i>adequate mastery</i> of on-demand essay writing.
4	The essay demonstrates <i>developing mastery</i> of on-demand essay writing.
3	The essay demonstrates <i>little mastery</i> of on-demand essay writing.
2	The essay demonstrates <i>very little mastery</i> of on-demand essay writing.
1	The essay demonstrates <i>no mastery</i> of on-demand essay writing.
0	No holistic score: This essay has not been given a holistic score or the six-dimensional scores because it is either a blank page, incoherent/illegible, insufficient (too short to assess), written in a foreign language, or off topic.

The WritePlacer Holistic Scoring Rubric provides detailed information about each score point:

## WritePlacer Holistic Scoring Rubric

### Score of 8

An essay in this category demonstrates clear and consistent mastery of on-demand essay writing with a few minor errors. A typical essay:

- Effectively and insightfully develops a point of view on the issue
- Addresses an appropriate audience and demonstrates a clear purpose for writing in the thesis statement
- Demonstrates outstanding critical thinking, using effective examples, reasons, and other evidence to support its position
- Is well-organized and clearly focused, demonstrating clear coherence and smooth progression of ideas
- Exhibits skillful use of language, using a varied, accurate, and apt vocabulary
- Demonstrates varied and effective sentence structure
- Is free of major errors in grammar, spelling, and punctuation

### Score of 7

An essay in this category demonstrates *consistent mastery* of on-demand essay writing although it may have occasional minor errors. A typical essay:

- Effectively and insightfully develops a point of view on the issue
- Addresses an appropriate audience and demonstrates a clear purpose for writing in the thesis statement
- Demonstrates outstanding critical thinking, using appropriate examples, reasons, and other evidence to support its position
- Is well-organized and focused, demonstrating clear coherence and smooth progression of ideas

- Exhibits appropriate language, using a varied and accurate vocabulary
- Demonstrates varied sentence structure
- Is practically free of errors in sentence structure, grammar, spelling, and punctuation

#### **Score of 6**

An essay in this category demonstrates ***reasonably consistent mastery*** of on-demand essay writing, although it may have occasional lapses in quality. A typical essay:

- Effectively develops a point of view on the issue
- Addresses an appropriate audience and demonstrates a clear purpose for writing
- Demonstrates strong critical thinking, generally using appropriate examples, reasons, and other evidence to support its position
- Is well-organized and focused, demonstrating coherence and a logical progression of ideas
- Exhibits consistent control in the use of language
- Demonstrates adequate variety in sentence structure
- Is generally free of errors in sentence structure, grammar, usage, spelling, and punctuation

#### **Score of 5**

An essay in this category demonstrates ***adequate mastery*** of on-demand essay writing although it will have lapses in quality. A typical essay:

- Develops a viable point of view on the issue
- May stray from the audience and purpose but is able to refocus
- Demonstrates competent critical thinking, using adequate examples, reasons, and other evidence to support its position
- Is generally organized and focused but could lack coherence and logical progression of ideas
- Exhibits adequate but inconsistent control of language
- Demonstrates some variety in sentence structure
- Contains some minor errors in sentence structure, grammar, spelling, and punctuation

#### **Score of 4**

An essay in this category demonstrates ***developing mastery*** of on-demand essay writing. A typical essay:

- Develops a viable point of view on the issue
- May stray from audience and purpose
- Demonstrates some critical thinking but may do so inconsistently or use inadequate examples, reasons, or other evidence to support its position
- May lack control of organization or focus, demonstrating some lapses in coherence or progression of ideas
- Contains some errors in sentence structure and use of grammatical conventions such as word choice, usage, spelling, and punctuation

#### **Score of 3**

An essay in this category demonstrates ***little mastery*** of on-demand essay writing. Flawed by ***one or more*** of the following weaknesses, a typical essay:

- Presents a vague or limited point of view on the issue
- Demonstrates little awareness of audience
- Attempts to develop the main idea though that attempt is inadequate
- Demonstrates weak critical thinking with little complexity of thought or with flawed reasoning

- Provides inappropriate or insufficient examples, reasons, or other evidence to support its position
- Is poorly organized and/or focused or demonstrates serious problems with coherence or progression of ideas
- Displays limited word choice and little sentence variety
- Contains many errors in mechanical conventions of usage, sentence structure, grammar, spelling, and punctuation

### Score of 2

An essay in this category demonstrates **very little mastery** of on-demand essay writing. Flawed by **many or most** of the following weaknesses, a typical essay:

- Presents a vague or limited point of view on the issue
- Demonstrates little awareness of audience
- Presents an unclear main idea
- Demonstrates weak critical thinking with little complexity of thought or with flawed reasoning
- Organizes ideas ineffectively, demonstrating a problematic progression of ideas
- Displays numerous errors in word choice, usage, and sentence structure
- Contains significant spelling, grammar, punctuation, and mechanical errors

### Score of 1

An essay in this category demonstrates **no mastery** of on-demand essay writing. Severely flawed by **many or most** of the following weaknesses, a typical essay:

- Lacks a viable point of view on the issue
- Demonstrates no awareness of audience
- Fails to present a main idea
- Demonstrates flawed reasoning
- Demonstrates no complexity of thought
- Is disorganized and/or disjointed
- Displays fundamental errors in word choice, usage, and sentence structure
- Contains pervasive spelling, grammar, punctuation, and mechanical errors

### Score of 0

This essay has not been given a holistic score or dimension scores because it is either a blank page, incoherent/illegible, insufficient (too short to assess), written in a foreign language, or off topic.

## WritePlacer Dimension Descriptions

In addition to the holistic score and description, additional feedback in the form of one of six dimensions considered essential in a well-written essay can be reported:

### Purpose and Focus

The extent to which the writer presents information in a unified and coherent manner, clearly addressing the issue. Specific elements considered include:

- Unity
- Consistency
- Coherence
- Relevance
- Audience

**Organization and Structure**

The extent to which the writer orders and connects ideas. Specific elements considered include:

- Introduction
- Thesis
- Body paragraphs
- Transitions
- Conclusions

**Development and Support**

The extent to which the writer develops and supports ideas. Specific elements considered include:

- Point of view
- Coherent arguments
- Evidence
- Elaboration

**Sentence Variety and Style**

The extent to which the writer crafts sentences and paragraphs demonstrating control of vocabulary, voice, and structure. Specific elements considered include:

- Sentence length
- Sentence structure
- Usage
- Tone
- Vocabulary
- Voice

**Mechanical Conventions**

The extent to which the writer expresses ideas using Standard English. Specific elements considered include:

- Spelling
- Grammar
- Punctuation

**Critical Thinking**

The extent to which the writer communicates a point of view and demonstrates reasoned relationships among ideas. Specific elements considered include:

- Clarity
- Depth
- Precision
- Logic
- Accuracy
- Fairness
- Breadth
- Relevance

## WritePlacer ESL Scoring Rubric

Test takers are asked to write an essay of 300 to 600 words in response to a prompt. The essay is electronically scored, and a holistic score ranging from 1 to 6 is reported along with one of the statements below.

Score	WritePlacer ESL Holistic Score Descriptions
6	The writing sample exhibits <b>strong control</b> of the elements of on-demand essay writing in English.
5	The writing sample exhibits <b>consistent control</b> of the elements of on-demand essay writing in English.
4	The writing sample exhibits <b>moderate control</b> of the elements of on-demand essay writing in English.
3	The writing sample exhibits <b>emerging competency</b> in the elements of on-demand essay writing in English.
2	The writing sample exhibits <b>limited competency</b> in the elements of on-demand essay writing in English.
1	The writing sample exhibits <b>little competency</b> in the elements of on-demand essay writing in English.
0	No holistic score. This writing sample has not been given a holistic score or the four-dimensional scores because it is either a blank page, incoherent, insufficient (too short to assess), written in a foreign language, or off topic.

The WritePlacer ESL Holistic Scoring Rubric provides detailed information about each score point:

### WritePlacer ESL Holistic Scoring Rubric

#### Score of 6

The writing sample exhibits **strong control** of the elements of on-demand essay writing in English.

- The writing sample exhibits strong control of focus, organization, and supporting details, with a sense of audience. The writing sample exhibits an insightful and engaging expression of ideas.
- The writing sample exhibits a strong control of a wide and complex range of vocabulary, with infrequent errors in word selection, word forms, and spelling.
- The writing sample generally exhibits strong control of sophisticated and varied sentence structure, with few errors.
- The writing sample exhibits strong control of grammatical forms. Some errors in word order, punctuation, and other aspects of grammar do not interfere with comprehension.

#### Score of 5

The writing sample exhibits **consistent control** of the elements of on-demand essay writing in English.

- The writing sample exhibits consistent control of focus, organization, and supporting details, with a sense of audience. The writing sample exhibits the use of a prewriting strategy with some analytical development.
- The writing sample exhibits a consistent control of a wide and complex range of vocabulary, but there may be a few distracting errors in word selection, word forms, and spelling.
- The writing sample generally exhibits consistent control of sophisticated and varied sentence structure.
- The writing sample exhibits consistent control of grammatical forms. Some errors in word order, punctuation, and other aspects of grammar may be distracting, but do not interfere with comprehension.

#### Score of 4

The writing sample exhibits **moderate control** of the elements of on-demand essay writing in English.

- The writing sample exhibits a moderate control of focus, organization, and supporting details with a sense of audience awareness. It exhibits evidence of the use of a prewriting strategy.
- The writing sample exhibits moderate control of a wide and complex range of vocabulary, but with some distracting errors in word selection, word forms, and spelling.
- The writing sample exhibits moderate control of complex and varied sentence structure.
- The writing sample exhibits moderate control of grammatical forms. Repetitive errors in word order, punctuation, and other aspects of grammar are distracting, but may not interfere with comprehension.

#### Score of 3

The writing sample exhibits **emerging competency** in the elements of on-demand essay writing in English.

- The writing sample exhibits an emerging use of paragraphs and topic sentences while it may lack overall focus and development.
- The writing sample exhibits an emerging use of complex vocabulary. Errors in word selection, word forms, and spelling sometimes obscure meaning.
- The writing sample exhibits an emerging use of complex sentences, but with distracting errors in word order and punctuation.
- The writing sample exhibits emerging control of grammatical forms, such as verb tense, with varied and numerous errors.

#### Score of 2

The writing sample exhibits **limited competency** in the elements of on-demand essay writing in English.

- The writing sample exhibits rudimentary development of ideas with an inconsistent ability to express ideas clearly in an organized pattern or with sufficient supporting details.
- The writing sample exhibits inconsistent competency in word use containing commonly used words and word phrases. Frequent errors in word selection, word forms, and spelling often obscure meaning.
- The writing sample exhibits inconsistent control of sentence use with some evidence of control of simple sentences. Commas and periods may be used to mark sentence boundaries, although there are many errors. Minimal attempts to coordinate sentences and to use subordinate clauses may be evident. Errors in grammatical forms are numerous.

#### Score of 1

The writing sample exhibits **little competency** in the elements of on-demand essay writing in English.

- The writing sample exhibits a simplistic expression of ideas and little to no development or organization.
- The writing sample exhibits a very limited range and variety of simple words and word phrases. Frequent errors in word selection, word forms, and spelling obscure meaning.
- The writing sample is typically characterized by short, choppy, simple sentences.
- The writing sample exhibits little or no control of grammatical forms.
- Sentence punctuation is omitted or used incorrectly.



**Score of 0**

This writing sample has not been given a holistic score or dimension scores because it is either a blank page, incoherent/illegible, insufficient (too short to assess), written in a foreign language, or off topic.

**WritePlacer ESL Dimension Descriptions**

In addition to the holistic score and description, additional feedback in the form of one of four dimensions considered essential in a well-written essay can be reported:

**Word Use**

The extent to which the writer is able to use a wide range of words and phrases accurately. Specific elements considered include:

- Range of vocabulary
- Appropriateness and accuracy of word choice
- Use of idiomatic expressions
- Choice of word forms (parts of speech) appropriate to context
- Spelling

**Sentence Use**

The extent to which the writer is able to use a variety of sentence patterns with both independent and dependent clauses. Specific elements considered include:

- Sentence boundaries (avoidance of fragments, run-ons, comma splices)
- Control of noun, verb, and adjective clause structure
- Sentence variety
- Word order
- Punctuation and capitalization

**Grammar**

The extent to which the writer is able to express ideas using grammatically correct English. Specific elements considered include:

- Verb forms (use of correctly formed verb tenses)
- Verb tenses (use of appropriate verb tenses to express meaning)
- Pronoun usage
- Agreement (subject-verb, adjective, pronoun, number)
- Count/noncount nouns
- Gerunds/infinitives (use of gerunds/infinitives as nouns and verb complements)
- Prepositions
- Articles

**Organization and Development**

The extent to which the writer is able to focus on the assigned topic and to develop ideas clearly. Specific elements considered include:

- Focus (information presented in a clear, unified, and coherent manner)
- Organization (ideas presented in a logical sequence)
- Support (use of relevant and sufficient information to clarify ideas)

APPENDIX B

# Text Complexity (Qualitative) - Reading and Writing

Dimension	Complexity Grade Band				
	4–5	6–8	9–10	11–PE (postsecondary entry; entry level)	Lower-division undergraduate
	Basic	Somewhat challenging	Moderately challenging	Complex	Highly complex
<b>Purpose</b> <i>Chiefly informational</i>	Single  Clear and direct	Single  Generally clear and direct	Single  Relatively straightforward	Single or multiple  Relatively subtle or complex Possibly hidden or intentionally obscured	Multiple  Subtle or complex Possibly hidden or intentionally obscured
<b>Level(s) of Meaning</b> <i>Chiefly literary</i>	One or multiple; if multiple, text can be understood/enjoyed on a literal level	One or multiple; if multiple, text can be understood/enjoyed on a literal level	One or multiple; if multiple, useful to a full understanding of the text	Multiple and important to a full understanding of the text	Multiple and necessary to a full understanding of the text
<b>Central Idea(s) and Theme(s)</b>	Explicit  Straightforward	Explicit or implicit; if implicit, easy to infer  Relatively straightforward	Explicit or implicit; if implicit, relatively easy to infer	Explicit or implicit; if implicit, relatively challenging to infer	Explicit or implicit; if implicit, challenging to infer  Subtle or complex
<b>Information, Ideas, and Relationships</b>	Straightforward; connections are explicit and clear	Somewhat challenging; connections may be implicit but easy to infer	Moderately challenging; connections may be implicit but relatively easy to infer	Challenging; connections are often implicit and relatively challenging to infer	Highly challenging; connections are frequently implicit and challenging to infer
<b>Accessibility of Experiences and Ideas</b>	Common or easily relatable	Sometimes unfamiliar	Sometimes unfamiliar	Often unfamiliar	Frequently unfamiliar
<b>Abstraction</b>	Concrete	Generally concrete	Sometimes abstract or theoretical	Often abstract or theoretical	Frequently abstract or theoretical
<b>Density and Pace</b>	Low to moderately low Slow to fairly slow	Moderately low Fairly slow	Moderate Fairly rapid	Moderately high to high Fairly rapid to rapid	High to very high Rapid to very rapid
<b>Text Structure</b>	Basic; easy to predict	Straightforward; generally easy to predict	Relatively straightforward	Relatively intricate or complex	Intricate or complex

(Continued)

(Continued from Previous)

<b>Syntax</b>	Basic	Somewhat challenging	Moderately challenging	Challenging	Highly challenging
	Mostly simple sentences	Mostly simple and compound sentences	Simple, compound, and complex sentences	Many complex sentences	Mostly complex sentences
<b>Diction</b>	Similar to everyday language; may be conversational in style and tone	Generally similar to everyday language; may be conversational in style and tone	Somewhat elevated and somewhat distinct from everyday language	Elevated and distinct from everyday language; ironic, ambiguous, or intentionally misleading language possible	Elevated and sharply distinct from everyday language; ironic, ambiguous, or intentionally misleading language possible
<b>Vocabulary</b>	Familiar	Generally familiar	Moderate	Moderately high	High
	Moderately low tier 2 and/or tier 3 demands; tier 3 words/phrases routinely glossed and foregrounded	Moderate tier 2 and/or tier 3 demands; tier 3 words/phrases routinely glossed and foregrounded	High tier 2 and/or tier 3 demands; tier 3 words/phrases less explicitly foregrounded	Very high tier 2 and/or tier 3 demands; relatively little scaffolding for tier 3 words/phrases	Major tier 2 and/or tier 3 demands; little scaffolding for tier 3 words/phrases
	Archaic, foreign, and otherwise uncommon words/phrases generally absent	Archaic, foreign, and otherwise uncommon words/phrases generally absent, discernible from context, or not central to meaning	Archaic, foreign, and otherwise uncommon words/phrases more likely to appear and to be relevant to a full understanding of the text	Archaic, foreign, and otherwise uncommon words/phrases much more likely to appear and to be important to a full understanding of the text	Archaic, foreign, and otherwise uncommon words/phrases highly likely to appear and to be central to a full understanding of the text
<b>Knowledge Demands (World/Cultural, Subject matter)</b>	Moderately low	Moderate	Moderate to moderately high	Moderately high to high	High to very high
<b>Intertextuality</b>	Absent, low, or incidental to full understanding of the text	Absent, low, or incidental to full understanding of the text	Absent, low, or incidental to full understanding of the text	Low to moderate; may be important to full understanding	Moderate to high; may be central to full understanding of the text
<b>Subject Matter Sensitivity</b>	Little maturity specifically expected	Certain degree of maturity sometimes expected; recognition that one's viewpoint may differ from that in the text is required	Some degree of maturity and ability to distance oneself from text expected	Maturity and ability to distance oneself from text often expected	Maturity and ability to distance oneself from text routinely expected

## APPENDIX C

# Skills Insight

## ACCUPLACER Reading Skills Insight

### Score range: 236 and below

Students scoring in this band are beginning to demonstrate the foundational skills and knowledge needed to be college and career ready.

### Score range: 237–249

Students scoring in this band can typically demonstrate the following skills and knowledge in somewhat challenging to moderately challenging texts:

- Locate clearly stated information in and draw simple inferences from a text
- Locate a text's explicitly stated main purpose or identify a paragraph's subtly stated main purpose
- Integrate basic information and ideas from multiple texts on the same topic
- Determine the meaning of a common word or phrase using clear context clues

### Score range: 250–262

Students scoring in this band can typically demonstrate the following additional skills and knowledge in moderately challenging texts:

- Locate and interpret subtly stated information in and determine an implicit central idea, theme, or purpose of a text
- Determine a straightforward function of a part of a text in relation to the whole text
- Make somewhat challenging connections between multiple texts on the same topic
- Determine the meaning of a common high-utility academic word or phrase using context clues

### Score range: 263–275

Students scoring in this band can typically demonstrate the following additional skills and knowledge in moderately challenging to complex texts:

- Describe the effect that word choice has on meaning or tone when the effect is subtle
- Determine a subtly established point of view or perspective in a text
- Make moderately challenging to complex connections between multiple texts on the same topic
- Determine the meaning of a relatively uncommon high-utility academic word or phrase in context or the literal meaning of a moderately challenging figurative expression in context

### Score range: 276 and above

Students scoring in this band can typically demonstrate the following additional skills and knowledge in complex to highly complex texts:

- Determine a complex function of a part of a text in relation to the whole text
- Determine a complex to highly complex central claim or counterclaim of a text
- Reach complex to highly complex or subtle assessments of an author's reasoning or use of evidence

## ACCUPLACER Writing Skills Insight

### Score range: 236 and below

Students scoring in this band are beginning to demonstrate the foundational skills and knowledge needed to be college and career ready.

### Score range: 237–249

Students scoring in this band can typically demonstrate the following skills and knowledge:

- Revise a somewhat to moderately challenging text to improve development and organization (e.g., delete a clearly irrelevant sentence, select a logical transitional phrase)
- Use language effectively in a somewhat to moderately challenging context (e.g., use familiar words and phrases precisely, correct basic redundancies)
- Recognize and correct a basic error in sentence structure, usage, or punctuation (e.g., an inappropriate shift in verb tense, missing punctuation between items in a list)

### Score range: 250–262

Students scoring in this band can typically demonstrate the following additional skills and knowledge:

- Revise a moderately challenging to complex text to improve development and organization (e.g., add support for an explicitly stated claim, make basic decisions about the order of information in a paragraph)
- Use language effectively in a moderately challenging context to achieve a rhetorical goal (e.g., combine sentences to incorporate a modifying phrase)
- Recognize and correct an error in sentence structure, usage, or punctuation (e.g., an obviously incomplete or run-on sentence)

### Score range: 263–275

Students scoring in this band can typically demonstrate the following additional skills and knowledge:

- Revise a moderately challenging to complex text to improve development and organization (e.g., effectively set up a main idea, use a transitional sentence to link ideas or topics within a text)
- Use language effectively in a complex context (e.g., revise text to eliminate subtle redundancies)
- Recognize and correct a complex error in sentence structure, usage, or punctuation (e.g., a vague pronoun, punctuation incorrectly setting off a restrictive sentence element)

### Score range: 276 and above

Students scoring in this band can typically demonstrate the following additional skills and knowledge:

- Revise a complex to highly complex text to improve development and organization (e.g., make a nuanced decision about the best placement of a sentence)
- Use language effectively in a complex to highly complex context (e.g., use the most appropriate word or phrase to achieve a particular rhetorical effect, such as emphasis)
- Recognize and correct a complex, subtle, or uncommon error in sentence structure, usage, or punctuation (e.g., a colon to introduce an explanation)

## ACCUPLACER Quantitative Reasoning, Algebra, and Statistics Skills Insight

### Score range: 236 and below

Students scoring in this band may demonstrate the following skills and knowledge:

- Identify a graph that represents a set of univariate data
- Fluently add, subtract, and multiply integers
- Identify coordinate points in the  $xy$ -plane

To gain more information on skills and knowledge students in this score band can typically demonstrate, it may be advisable to administer the ACCUPLACER Arithmetic placement test.

### Score range: 237–249

Students scoring in this band can typically demonstrate the following additional skills or knowledge:

- Identify a linear equation or inequality that represents a simple context
- For a linear equation in two variables, given one value, calculate or find the other value
- Evaluate a numerical rational or radical expression consisting of integers
- Solve one-step problems involving unit rate, ratio, proportion, and unit conversion

### Score range: 250–262

Students scoring in this band can typically demonstrate the following additional skills or knowledge:

- Describe a solution to a system of equations or inequalities algebraically
- Create and use a system of linear equations to solve problems
- Apply rates, ratios, and unit conversions in multistep problems
- Make connections between tables, graphs, verbal descriptions, and algebraic equations representing a linear relationship

### Score range: 263–275

Students scoring in this band can typically demonstrate the following additional skills or knowledge:

- Calculate or find the slope and  $y$ -intercept of a line that is parallel to a given line
- Evaluate numerical expressions with negative and fractional exponents
- Calculate conditional probability for simple problems
- Interpret the  $y$ -intercept of a graph within a context

### Score range: 276 and above

Students scoring in this band can typically demonstrate the following additional skills or knowledge:

- Calculate or find the slope and  $y$ -intercept of a line that is perpendicular to a given line
- Given a nonlinear function, calculate or find the input given the output
- Compare the means and medians of two data distributions
- Create expressions to represent complex perimeter and area problems
- Evaluate numerical expressions involving absolute value

## ACCUPLACER Advanced Algebra and Functions Skills Insight

### Score range: 236 and below

Students scoring in this band may demonstrate the following skills and knowledge:

- Given a linear function that represents a context, calculate or find the output given the input
- Apply rules of exponents to simplify expressions
- Solve quadratic equations in  $x^2 + bx + c = 0$  form by factoring
- Interpret the meaning of a value in an exponential function based on the context

To gain more information on skills and knowledge students in this score band can typically demonstrate, it may be advisable to administer the ACCUPLACER Quantitative Reasoning, Algebra, and Statistics placement test.

### Score range: 237–249

Students scoring in this band can typically demonstrate the following additional skills or knowledge:

- Solve linear equation systems in  $ax + by = cx + dy$  form with integer coefficients
- Make connections between tables and algebraic equations representing a nonlinear relationship
- Rewrite complex polynomial (including quadratic) expressions by factoring
- Solve simple rational and radical equations

### Score range: 250–262

Students scoring in this band can typically demonstrate the following additional skills or knowledge:

- Make connections between graphs and algebraic equations representing quadratic relationships
- Rewrite rational expressions
- Use properties of triangles to solve problems
- Utilize simple trigonometric ratios

### Score range: 263–275

Students scoring in this band can typically demonstrate the following additional skills or knowledge:

- Add and subtract rational expressions
- Solve complex rational equations
- Solve exponential equations in one variable
- Relate the solutions of a system of a linear and nonlinear equation in two variables to the graphs of the system

### Score range: 276 and above

Students scoring in this band can typically demonstrate the following additional skills or knowledge:

- Make connections between graphical, tabular, and algebraic representations of relationships involving the absolute value function
- Solve quadratic equations in one variable using any method, including completing the square
- Use concepts about trigonometric functions (sine, cosine, tangent) to solve problems, including within the unit circle
- Evaluate logarithmic equations

## APPENDIX D

# ACCUPLACER ESL Tests - Proficiency Statements

## ESL Reading Skills

### Scaled score of about 57

Test takers at this level demonstrate the following skills and can:

- Locate information in a passage by answering literal comprehension questions on even the longest passages if the question posed and the answer to that question are in the same sentence or in close proximity to one another
- Answer questions in which the wording in the answer is very similar to the wording in the passage or uses minimal paraphrasing
- Answer some questions requiring small inferences (including questions asking for the main idea of the passage) if the options don't require new distinctions
- Answer questions based on maps and charts

### Scaled score of about 82

Test takers at this level demonstrate the following additional skills and can:

- Answer questions that require drawing conclusions on the basis of the information presented in the passage or making inferences from the information presented
- Recognize the main idea of a passage even when presented with wrong answer choices mentioned in the passage as supporting information

### Scaled score of about 102

Test takers at this level can demonstrate the following additional skills and can:

- Answer questions that require dealing with a passage as a whole or manipulating the information presented in the passage
- Make generalizations on the basis of the information in the passage, recognize what was implied, and answer questions about the author's tone and purpose

## ESL Sentence Meaning

### Scaled score of about 61

Test takers at this level demonstrate the following skills and can:

- Handle sentences with simple structures characterized by everyday subjects and simple vocabulary, including common nouns, adjectives, and verbs
- Select the appropriate vocabulary in sentences that provide multiple contextual clues

### Scaled score of about 88

Test takers at this level demonstrate the following additional skills and can:

- Handle vocabulary in sentences that have compound or complex structures or present more complex situations than the sentences at the level above
- Handle the following kinds of vocabulary:
  - ♦ Two-word verbs
  - ♦ Adverbs of comparison
  - ♦ More extended idiomatic expressions
  - ♦ Longer descriptions
- Select appropriate vocabulary in sentences that provide a single contextual clue



### **Scaled score of about 106**

Test takers at this level demonstrate the following additional skills and can:

- Handle vocabulary in sentences with complex structures that are characterized by abstract statements or idiomatic expressions
- Demonstrate knowledge of idioms that are two-word verbs or the use of idioms to express the appropriate meaning
- Deduce the appropriate vocabulary from an entire sentence rather than from specific contextual clues, often in situations where grammar and vocabulary intersect

## **ESL Language Use**

### **Scaled score of about 55**

Test takers scoring at this level can choose correct grammatical forms when they are controlled by the basic rules of grammar. For example, in simple sentences, they can recognize basic grammatical structures such as subject-verb agreement, pronoun case and form, noun forms (including recognizing subject, case, and number), and verb forms. They can handle questions involving word order, prepositional phrases, and simple clauses.

### **Scaled score of about 82**

Test takers scoring at this level can handle a variety of complex structures such as comparatives at the phrase level such as “so tall that,” relative clauses, structures at the clause level such as “not only ... but also,” simple subordination, and function at the whole-sentence level.

### **Scaled score of about 100**

Test takers scoring at this level demonstrate the following additional skills and can:

- Recognize irregular verb forms such as “draw/drawn,” fairly unusual idioms such as “couldn’t get over it,” and indirect object structures such as “gave her one”
- Handle questions involving transformations of declarative sentences into questions, the conditional, and mood parallelism
- Choose appropriate structures to state complex ideas, often in complex sentences using subordination or coordination

## **ESL Listening**

### **Scaled score of about 50**

Test takers at this level may show reasonable proficiency in literal comprehension but are likely to encounter difficulty following instructions and may find it difficult to draw inferences. Although they may show proficiency in understanding common everyday situations and simple academic situations, they are likely to have difficulty comprehending more complex life situations and many academic situations. At this level, they have a relatively small vocabulary of basic words.

### **Scaled score of about 70**

Test takers at this level typically are skilled in literal comprehension and can make the more direct inferences but may lack the ability to make more complex inferences and to follow instructions. Although they may show proficiency in understanding most everyday situations and common academic situations, they may have difficulty comprehending more complex academic situations, including lectures. At this level, they have a working vocabulary to handle many everyday situations but will have difficulty with more complex or infrequently used words.

### **Scaled score of about 90 or higher**

Test takers at this level are able to comprehend both literal and inferential meaning of spoken material. They typically show proficiency in understanding everyday situations and all types of academic situations. At this level, they can understand a large number of words and can handle more complex vocabulary.

**APPENDIX E**

# Statistical Characteristics of ACCUPLACER Test Question Pools

**Table E-1 ACCUPLACER Reading Test**

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Information and Ideas (N = 109)</i>	A	0.7847	0.2652	0.2073	1.5390
	B	-0.2950	1.1183	-2.2931	4.3485
	C	0.1733	0.0708	0.0417	0.3600
	rp67	0.0564	1.1262	-1.6032	5.4595
<i>Rhetoric (N = 104)</i>	A	0.7757	0.2795	0.2784	1.6552
	B	0.0442	0.9491	-1.7190	2.2201
	C	0.1830	0.0788	0.0428	0.4493
	rp67	0.3820	0.9343	-1.4158	2.6719
<i>Synthesis (N = 20)</i>	A	0.7617	0.3492	0.2844	1.6307
	B	0.8661	0.9564	-0.9456	2.1106
	C	0.1687	0.0956	0.0402	0.3771
	rp67	1.2662	0.9579	-0.3625	3.0095
<i>Vocabulary (N = 38)</i>	A	0.8857	0.2946	0.3632	1.7744
	B	-0.0220	1.2622	-2.6640	3.2295
	C	0.1878	0.0819	0.0245	0.3809
	rp67	0.2486	1.3202	-2.2193	3.6975
<i>Overall (N = 271)</i>	A	0.7937	0.2826	0.2073	1.7744
	B	-0.0409	1.1029	-2.6640	4.3485
	C	0.1787	0.0773	0.0245	0.4493
	rp67	0.2976	1.1134	-2.2193	5.4595

**Table E-2 ACCUPLACER Writing Test**

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Expression of Ideas (N = 197)</i>	A	0.7172	0.2710	0.1210	1.4247
	B	0.1727	1.2528	-1.9138	9.6857
	C	0.1944	0.0891	0.0429	0.4685
	rp67	0.5343	1.3105	-1.6790	10.7856
<i>Development (N = 65)</i>	A	0.6424	0.2515	0.1492	1.1729
	B	-0.0330	1.1223	-1.8046	4.0270
	C	0.1899	0.0905	0.0758	0.4685
	rp67	0.3898	1.2235	-1.1915	5.1107

(Continued)

(Continued from Previous)

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Organization (N = 65)</i>	A	0.6930	0.2403	0.2034	1.2530
	B	0.3045	0.9871	-1.5679	2.8183
	C	0.2081	0.0814	0.0665	0.3854
	rp67	0.6330	0.9872	-1.0880	3.0672
<i>Effective Language Use (N = 67)</i>	A	0.8132	0.2920	0.1210	1.4247
	B	0.2444	1.5591	-1.9138	9.6857
	C	0.1854	0.0945	0.0429	0.4478
	rp67	0.5788	1.6345	-1.6790	10.7856
<i>Standard English Conventions (N = 133)</i>	A	0.6874	0.2762	0.2234	1.4398
	B	0.4306	1.2372	-2.3642	4.9918
	c	0.1840	0.0844	0.0251	0.4570
	rp67	0.8405	1.2892	-2.0632	5.9232
<i>Sentence Structure (N = 29)</i>	a	0.7231	0.2950	0.3035	1.3097
	b	0.2584	1.1687	-2.1581	2.4954
	c	0.1791	0.0826	0.0588	0.3976
	rp67	0.6554	1.1243	-1.7311	2.5791
<i>Conventions of Usage (N = 37)</i>	a	0.6215	0.2360	0.2567	1.1534
	b	0.0343	0.9137	-2.1056	1.8932
	c	0.1685	0.0835	0.0537	0.3882
	rp67	0.5016	0.8984	-1.3586	2.8634
<i>Conventions of Punctuation (N = 67)</i>	a	0.7084	0.2860	0.2234	1.4398
	b	0.7240	1.3557	-2.3642	4.9918
	c	0.1948	0.0854	0.0251	0.4570
	rp67	1.1078	1.4818	-2.0632	5.9232

**Table E-3 ACCUPLACER Arithmetic Test**

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Whole number operations (N = 40)</i>	a	0.6786	0.2464	0.2812	1.5335
	b	-1.4769	1.5207	-4.2793	2.4524
	c	0.1571	0.0734	0.0538	0.3609
	rp67	-1.0569	1.4657	-3.7951	2.6708
<i>Fraction operations (N = 78)</i>	a	0.8706	0.2498	0.2939	1.5413
	b	0.3326	0.9223	-2.6456	1.7261
	c	0.1665	0.0884	0.0337	0.4082
	rp67	0.6168	0.9041	-2.1801	2.1831

(Continued)

(Continued from Previous)

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Decimal operations (N = 172)</i>	a	0.6127	0.2029	0.2728	2.0881
	b	-0.9537	1.3446	-4.5916	6.3859
	c	0.1716	0.0887	0.0107	0.4720
	rp67	-0.5457	1.3298	-4.2676	6.9009
<i>Percent (N = 165)</i>	a	0.7177	0.2047	0.1617	1.2821
	b	0.3316	1.2441	-2.2343	6.3859
	c	0.1959	0.1029	0.0061	0.5032
	rp67	0.6454	1.2907	-1.8691	8.1704
<i>Number comparisons and equivalents (N = 141)</i>	a	0.7149	0.2923	0.1870	1.8764
	b	-0.1019	1.5538	-4.5045	3.1995
	c	0.1873	0.0850	0.0079	0.3883
	rp67	0.2506	1.4935	-3.8989	3.4637
<i>Overall (N = 596)</i>	a	0.7041	0.2484	0.1617	2.0881
	b	-0.2631	1.4709	-4.5916	6.3859
	c	0.1804	0.0917	0.0061	0.5032
	rp67	0.0903	1.4395	-4.2676	8.1704

**Table E-4 ACCUPLACER Quantitative Reasoning, Algebra, & Statistics Test**

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Rational numbers (N = 140)</i>	a	0.6995	0.3126	0.1591	2.0519
	b	0.6892	1.4792	-3.3913	7.4047
	c	0.2115	0.1029	0.0281	0.5088
	rp67	1.0049	1.4964	-2.9522	8.5580
<i>Ratio and proportional relationships (N = 164)</i>	a	0.6709	0.2932	0.1695	1.8451
	b	-0.1795	1.6399	-4.0061	5.1157
	c	0.1771	0.0929	0.0000	0.5000
	rp67	0.2219	1.6133	-3.4678	6.0498
<i>Exponents (N = 141)</i>	a	0.7103	0.3100	0.1664	1.8981
	b	0.6000	1.6507	-3.8519	4.9318
	c	0.1891	0.0769	0.0338	0.5265
	rp67	0.9563	1.6029	-3.2256	5.8737
<i>Algebraic Expressions (N = 224)</i>	a	0.7493	0.3620	0.1435	2.2219
	b	0.7060	1.6427	-3.2475	4.5830
	c	0.1685	0.0824	0.0361	0.5520
	rp67	1.0986	1.5938	-2.7650	5.1911

(Continued)

(Continued from Previous)

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Geometry concepts for Pre-Algebra (N = 127)</i>	a	0.6633	0.2860	0.1481	1.7397
	b	0.5279	1.8631	-4.2292	4.4925
	c	0.1818	0.0859	0.0125	0.3849
	rp67	0.9419	1.8077	-3.5647	4.9734
<i>Linear equations (N = 441)</i>	a	0.6351	0.2956	0.1700	2.2153
	b	0.8670	1.7725	-5.3782	7.1011
	c	0.1849	0.0775	0.0000	0.6196
	rp67	1.2911	1.7103	-4.0860	7.2160
<i>Linear applications and graphs (N = 139)</i>	a	0.6557	0.2907	0.1617	1.8522
	b	1.7466	1.4336	-2.8220	6.6097
	c	0.1965	0.0773	0.0257	0.4337
	rp67	2.1197	1.3990	-2.2912	7.2438
<i>Geometry concepts for Algebra 1 (N = 124)</i>	a	0.7398	0.3787	0.1440	1.9272
	b	1.5690	1.4150	-3.3205	4.6199
	c	0.1901	0.0905	0.0029	0.5068
	rp67	1.9490	1.3420	-2.2186	4.6782
<i>Descriptive statistics (N = 90)</i>	a	0.5872	0.2340	0.1773	1.3300
	b	0.2478	2.0887	-4.4542	4.8163
	c	0.1695	0.0922	0.0224	0.3722
	rp67	0.7147	1.9970	-3.8498	4.9998
<i>Probability and sets (N = 63)</i>	a	0.5048	0.2551	0.1335	1.4323
	b	0.9615	2.0653	-3.7070	8.3582
	c	0.1865	0.0847	0.0695	0.4405
	rp67	1.5090	1.9749	-2.6092	8.7305
<i>Overall (N = 1653)</i>	a	0.6702	0.3136	0.1335	2.2219
	b	0.7740	1.7625	-5.3782	8.3582
	c	0.1849	0.0854	0.0000	0.6196
	rp67	1.1753	1.7129	-4.0860	8.7305

**Table E-5 ACCUPLACER Advanced Algebra and Functions Test**

<b>Content (# of items)</b>	<b>Parameters</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<i>Linear equations (N = 441)</i>	a	0.6351	0.2956	0.1700	2.2153
	b	0.8670	1.7725	-5.3782	7.1011
	c	0.1849	0.0775	0.0000	0.6196
	rp67	1.2911	1.7103	-4.0860	7.2160
<i>Linear applications and graphs (N = 139)</i>	a	0.6557	0.2907	0.1617	1.8522
	b	1.7466	1.4336	-2.8220	6.6097
	c	0.1965	0.0773	0.0257	0.4337
	rp67	2.1197	1.3990	-2.2912	7.2438
<i>Factoring (N = 176)</i>	a	0.7419	0.2676	0.1448	1.5794
	b	1.3178	1.4038	-3.6015	5.4979
	c	0.2097	0.0865	0.0489	0.5771
	rp67	1.6136	1.3888	-2.1458	5.7071
<i>Quadratics (N = 191)</i>	a	0.6411	0.2921	0.1729	1.8640
	b	1.7635	1.7499	-4.1005	5.8547
	c	0.2016	0.0869	0.0428	0.5483
	rp67	2.1535	1.6321	-3.2467	6.4944
<i>Geometry concepts for Algebra 1 (N = 124)</i>	a	0.7398	0.3787	0.1440	1.9272
	b	1.5690	1.4150	-3.3205	4.6199
	c	0.1901	0.0905	0.0029	0.5068
	rp67	1.9490	1.3420	-2.2186	4.6782
<i>Functions (N = 165)</i>	a	0.7940	0.3292	0.2050	1.8285
	b	1.8480	1.4865	-1.9739	7.1364
	c	0.1953	0.0876	0.0347	0.4656
	rp67	2.1727	1.4579	-1.4596	7.4080
<i>Radical and rational equations (N = 299)</i>	a	0.7582	0.2776	0.1262	1.6724
	b	1.8617	1.4005	-3.2593	5.8439
	c	0.1873	0.0787	0.0003	0.5000
	rp67	2.1888	1.4094	-3.2304	7.1919
<i>Polynomial equations (N = 169)</i>	a	0.7626	0.3816	0.0930	2.9470
	b	1.0469	1.6011	-3.7995	6.6710
	c	0.1728	0.0975	0.0130	0.4390
	rp67	1.4420	1.6481	-3.4398	8.8386
<i>Exponential and logarithmic equations and graphs (N = 59)</i>	a	0.7972	0.4604	0.2108	2.2046
	b	1.9100	1.7979	-1.9133	4.9889
	c	0.1873	0.0790	0.0615	0.3875
	rp67	2.2807	1.6422	-1.0961	5.3172

(Continued)

(Continued from Previous)

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Geometry concepts for Algebra 2 (N = 101)</i>	a	0.7140	0.3248	0.2051	2.1177
	b	1.2628	1.7476	-3.2395	8.3143
	c	0.1803	0.0887	0.0261	0.4893
	rp67	1.6557	1.8307	-2.7793	9.5083
<i>Trigonometry (N = 100)</i>	a	0.6594	0.3506	0.0571	1.6390
	b	2.9527	1.4221	-0.5635	6.4466
	c	0.1876	0.0878	0.0000	0.4780
	rp67	3.5394	1.5994	0.3890	10.4344
<i>Overall (N = 1964)</i>	a	0.7065	0.3222	0.0571	2.9470
	b	1.5084	1.6639	-5.3782	8.3143
	c	0.1901	0.0845	0.0000	0.6196
	rp67	1.8907	1.6458	-4.0860	10.4344

**Table E-6 ACCUPLACER ESL Reading Skills Test**

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Literal Comprehension (N = 91)</i>	a	1.0661	0.3983	0.2153	2.0000
	b	-0.3039	0.9973	-3.6513	2.8540
	c	0.1889	0.0561	0.0417	0.4936
	rp67	-0.0605	0.9763	-3.1004	2.9568
<i>*One-question passage* (N = 91)</i>	a	1.0661	0.3983	0.2153	2.0000
	b	-0.3039	0.9973	-3.6513	2.8540
	c	0.1889	0.0561	0.0417	0.4936
	rp67	-0.0605	0.9763	-3.1004	2.9568
<i>Science (N = 24)</i>	a	1.0590	0.3787	0.5510	1.9740
	b	-0.0232	0.8271	-1.6310	1.2720
	c	0.1869	0.0425	0.0939	0.2927
	rp67	0.2189	0.8522	-1.3813	1.7323
<i>History/Social Science (N = 8)</i>	a	1.0567	0.3966	0.4690	1.7990
	b	-0.1677	0.9322	-1.9170	1.3368
	c	0.1908	0.0306	0.1152	0.2020
	rp67	0.0648	0.8682	-1.4788	1.5067
<i>Art/Humanities (N = 18)</i>	a	1.0871	0.4089	0.5762	2.0000
	b	-0.0354	0.7520	-1.2140	1.3554
	c	0.1942	0.0864	0.0417	0.4936
	rp67	0.1816	0.8143	-1.0812	1.8062

(Continued)

(Continued from Previous)

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Narratives (N = 16)</i>	a	0.9874	0.4493	0.2153	2.0000
	b	-0.7550	1.5199	-3.6513	2.8540
	c	0.1826	0.0405	0.1020	0.2419
	rp67	-0.4612	1.4311	-3.1004	2.9568
<i>Psychology/Human Relations (N = 14)</i>	a	1.1334	0.4197	0.5132	1.9610
	b	-0.3737	0.5683	-1.5660	0.5030
	c	0.1813	0.0781	0.0691	0.3514
	rp67	-0.1229	0.5813	-1.3933	0.8450
<i>Practical Situations (N = 11)</i>	a	1.0834	0.3923	0.6060	1.7970
	b	-0.7095	1.0372	-3.1530	0.2210
	c	0.2020	0.0000	0.2020	0.2020
	rp67	-0.4955	0.9831	-2.8139	0.4072
<i>Inference (N = 94)</i>	a	1.0595	0.4501	0.2560	2.1255
	b	-0.1017	0.8984	-3.3310	2.0830
	c	0.2023	0.0501	0.0568	0.3505
	rp67	0.1407	0.8692	-2.5375	2.6100
<i>*One-question passage* (N = 56)</i>	a	1.0438	0.4266	0.2560	2.1255
	b	0.0604	0.8506	-1.9070	1.7680
	c	0.2026	0.0652	0.0568	0.3505
	rp67	0.2965	0.8040	-1.6641	2.0092
<i>Science (N = 10)</i>	a	0.9686	0.5693	0.2560	2.0000
	b	0.1586	0.9103	-1.1810	1.2870
	c	0.1912	0.0704	0.0568	0.3288
	rp67	0.4833	0.7794	-0.6821	1.5401
<i>History/Social Science (N = 11)</i>	a	0.9087	0.3069	0.5859	1.5767
	b	0.3093	0.8824	-1.3800	1.7680
	c	0.2163	0.0745	0.0886	0.3505
	rp67	0.5366	0.8309	-1.0469	1.9386
<i>Art/Humanities (N = 16)</i>	a	1.1275	0.4388	0.4066	2.1255
	b	0.0494	0.8332	-0.9471	1.4950
	c	0.2153	0.0633	0.0928	0.3290
	rp67	0.2539	0.7559	-0.7297	1.6065
<i>Narratives (N = 12)</i>	a	1.0975	0.4221	0.5610	2.0064
	b	-0.0765	0.5245	-0.9560	0.7300
	c	0.2038	0.0643	0.0591	0.3416
	rp67	0.1307	0.5326	-0.7853	0.9201

(Continued)



(Continued from Previous)

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Psychology/Human Relations</i> (N = 5)	a	1.1478	0.4396	0.7364	1.8626
	b	-0.2531	1.4960	-1.9070	1.7314
	c	0.1519	0.0482	0.0946	0.2020
	rp67	-0.0016	1.5091	-1.6641	2.0092
<i>Practical Situations</i> (N = 2)	a	0.9125	0.1874	0.7800	1.0450
	b	-0.1075	0.7814	-0.6600	0.4450
	c	0.2020	0.0000	0.2020	0.2020
	rp67	0.1226	0.7341	-0.3965	0.6417
<b>*Two-question passage*</b> (N = 38)	a	1.0826	0.4875	0.2590	2.0000
	b	-0.3405	0.9246	-3.3310	2.0830
	c	0.2020	0.0000	0.2020	0.2020
	rp67	-0.0888	0.9204	-2.5375	2.6100
<i>Science</i> (N = 12)	a	1.2436	0.4170	0.5510	2.0000
	b	-0.2243	0.4676	-1.0340	0.5640
	c	0.2020	0.0000	0.2020	0.2020
	rp67	-0.0354	0.4319	-0.7657	0.7111
<i>History/Social Science</i> (N = 4)	a	0.7588	0.0996	0.6590	0.8560
	b	-0.2088	0.6931	-1.2110	0.3770
	c	0.2020	0.0000	0.2020	0.2020
	rp67	0.0657	0.6768	-0.9123	0.6240
<i>Art/Humanities</i> (N = 5)	a	0.7886	0.4950	0.2700	1.5910
	b	-0.0788	1.1787	-1.4170	1.7600
	c	0.2020	0.0000	0.2020	0.2020
	rp67	0.2815	1.3599	-1.0866	2.5212
<i>Narratives</i> (N = 5)	a	0.6272	0.2826	0.2590	0.8880
	b	-0.6222	1.9941	-3.3310	2.0830
	c	0.2020	0.0000	0.2020	0.2020
	rp67	-0.2090	1.9150	-2.5375	2.6100
<i>Psychology/Human Relations</i> (N = 4)	a	1.1598	0.4575	0.7320	1.7100
	b	0.0590	0.5517	-0.6610	0.6150
	c	0.2020	0.0000	0.2020	0.2020
	rp67	0.2583	0.5546	-0.4160	0.8958
<i>Practical Situations</i> (N = 8)	a	1.4328	0.4957	0.3370	1.9580
	b	-0.7679	0.5781	-1.6460	0.1190
	c	0.2020	0.0000	0.2020	0.2020
	rp67	-0.5762	0.4873	-1.2038	0.2240

**Table E-7 ACCUPLACER ESL Sentence Meaning Test**

<b>Content (# of items)</b>	<b>Parameters</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<i>Fill in the Blank (N = 142)</i>	a	0.9398	0.3380	0.2700	1.9920
	b	-0.2862	1.0713	-2.3720	2.5710
	c	0.1742	0.0790	0.0430	0.4371
	rp67	0.0050	1.0458	-2.0782	2.7411
<i>Particles, phrasal verbs, prepositions (N = 33)</i>	a	0.9325	0.3197	0.3270	1.8810
	b	0.2451	0.8390	-1.2930	1.5705
	c	0.2105	0.0901	0.0600	0.4371
	rp67	0.4728	0.7709	-1.0085	1.8002
<i>Adverbs, adjectives, connectives sequence (N = 43)</i>	a	0.9057	0.3509	0.3958	1.9920
	b	-0.5120	1.0357	-2.2950	2.5710
	c	0.1484	0.0638	0.0530	0.3380
	rp67	-0.1666	1.0327	-2.0108	2.7411
<i>Basic nouns and verbs (N = 42)</i>	a	0.9552	0.3242	0.2700	1.6200
	b	-0.7861	1.0151	-2.3720	1.6009
	c	0.1668	0.0853	0.0430	0.3880
	rp67	-0.4948	1.0412	-2.0782	2.3532
<i>Common idioms (N = 24)</i>	a	0.9841	0.3756	0.3359	1.9759
	b	0.2628	0.9947	-2.1453	2.0314
	c	0.1832	0.0565	0.0900	0.2906
	rp67	0.5440	0.9326	-1.7987	2.1951
<i>4-option multiple choice (N = 121)</i>	a	0.8382	0.2872	0.2907	1.7800
	b	-0.4584	1.0076	-2.0300	3.5152
	c	0.1540	0.0695	0.0330	0.4739
	rp67	-0.0982	0.9865	-1.7784	3.7701
<i>Particles, phrasal verbs, prepositions (N = 15)</i>	a	0.9313	0.2005	0.6381	1.3000
	b	-0.2906	1.1694	-1.3595	3.5152
	c	0.2089	0.0755	0.1235	0.3950
	rp67	-0.0755	1.1514	-1.0618	3.7701
<i>Adverbs, adjectives, connectives sequence (N = 42)</i>	a	0.7391	0.2970	0.2907	1.4980
	b	-0.3031	1.0542	-1.9380	2.1380
	c	0.1429	0.0580	0.0330	0.2640
	rp67	0.1282	1.0554	-1.4394	2.7544
<i>Basic nouns and verbs (N = 40)</i>	a	0.8618	0.3258	0.3970	1.7800
	b	-0.8013	0.8808	-2.0300	1.5976
	c	0.1445	0.0808	0.0400	0.4739
	rp67	-0.4259	0.8457	-1.7784	2.0398

(Continued)

(Continued from Previous)

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Common idioms (N = 24)</i>	a	0.9143	0.1954	0.5185	1.2632
	b	-0.2636	0.9282	-1.7460	1.8803
	c	0.1551	0.0486	0.0500	0.2610
	rp67	0.0378	0.8789	-1.3736	2.1389

**Table E-8 ACCUPLACER ESL Language Use Test**

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Fill in the Blank (N = 168)</i>	a	0.8036	0.3553	0.2030	2.0000
	B	-0.5658	1.1898	-4.6710	2.2020
	C	0.1413	0.1185	0.0060	0.5000
	rp67	-0.1565	1.1675	-3.9488	2.4203
<i>Noun (N = 33)</i>	A	0.8341	0.4422	0.2030	2.0000
	B	-0.8481	1.2216	-4.6710	1.8690
	c	0.1686	0.1467	0.0140	0.5000
	rp67	-0.4731	1.2617	-3.9488	2.4151
<i>Sentence Structure (N = 34)</i>	a	0.7878	0.2441	0.3400	1.3300
	b	-0.5511	1.2519	-3.7300	1.5850
	c	0.1530	0.1118	0.0060	0.5000
	rp67	-0.1838	1.2311	-3.0817	2.4203
<i>Subject-Verb Agreement (N = 21)</i>	a	0.7223	0.2711	0.2530	1.2260
	b	-0.3720	1.3212	-3.3500	2.2020
	c	0.1448	0.1221	0.0160	0.5000
	rp67	0.0643	1.3138	-3.0001	2.3682
<i>Adjective/Adverb (N = 23)</i>	a	0.7729	0.3749	0.3700	1.9900
	b	-0.4414	0.9515	-2.3020	1.4570
	c	0.1066	0.0932	0.0140	0.4020
	rp67	0.0515	0.9463	-1.8993	2.0772
<i>Verbs (N = 45)</i>	a	0.8801	0.3776	0.4240	2.0000
	b	-0.3246	0.8539	-1.7180	2.0080
	c	0.1286	0.1119	0.0060	0.5000
	rp67	0.0611	0.8282	-1.3880	2.0757
<i>Subordination and Coordination (N = 12)</i>	a	0.6788	0.3531	0.2790	1.6050
	b	-1.3124	1.8325	-4.3200	1.2420
	c	0.1410	0.1115	0.0460	0.4190
	rp67	-0.8100	1.6424	-3.3734	1.7191

(Continued)

(Continued from Previous)

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Sentence Combining (N = 101)</i>	a	0.7624	0.3845	0.0670	2.0000
	b	-0.4495	1.0793	-2.2480	3.4420
	c	0.1309	0.0988	0.0070	0.5000
	rp67	0.0546	1.1375	-1.7446	3.8650
<i>Noun (N = 8)</i>	a	0.6350	0.2361	0.3410	1.0900
	b	-0.7033	0.6513	-1.5780	-0.0610
	c	0.0844	0.0695	0.0180	0.1900
	rp67	-0.0995	0.7828	-1.0515	1.0003
<i>Sentence Structure (N = 25)</i>	a	0.8546	0.4230	0.2960	2.0000
	b	-0.4753	0.9733	-2.2480	1.2500
	c	0.1450	0.1039	0.0070	0.5000
	rp67	-0.0491	0.9348	-1.7446	1.5005
<i>Subject-Verb Agreement (N = 7)</i>	a	0.6660	0.3923	0.0670	1.1880
	b	-1.1846	0.8371	-2.1550	-0.0760
	c	0.1347	0.0692	0.0420	0.1900
	rp67	-0.3161	1.7895	-1.6421	3.2502
<i>Adjective/Adverb (N = 9)</i>	a	0.6881	0.4074	0.3140	1.7300
	b	-0.7768	0.6634	-2.0030	0.2620
	c	0.0611	0.0526	0.0160	0.1900
	rp67	-0.1332	0.7349	-1.3382	0.9214
<i>Verbs (N = 10)</i>	a	0.7381	0.2731	0.3880	1.2590
	b	0.5648	1.6531	-1.6110	3.4420
	c	0.1338	0.0775	0.0200	0.2500
	rp67	1.0294	1.6438	-1.0096	3.8650
<i>Subordination and Coordination (N = 42)</i>	a	0.7695	0.4046	0.1160	2.0000
	b	-0.4346	1.0228	-2.1370	2.7410
	c	0.1449	0.1109	0.0120	0.4730
	rp67	0.0156	1.0474	-1.4336	3.8035

**Table E-9 ACCUPLACER ESL Listening Test**

Content (# of items)	Parameters	Mean	Std. Dev.	Min	Max
<i>Literal Comprehension</i> (N = 276)	a	1.1369	0.3839	0.2773	2.3790
	b	-0.6706	0.7359	-2.2915	2.6210
	c	0.2012	0.0769	0.0289	0.5337
	rp67	-0.4652	0.7165	-1.9225	2.9339
<i>Conversation</i> (N = 233)	a	1.1653	0.3908	0.3013	2.3790
	b	-0.7219	0.7384	-2.2915	2.6210
	c	0.2024	0.0792	0.0289	0.5337
	rp67	-0.5231	0.7155	-1.9225	2.9339
<i>Lecture</i> (N = 43)	a	0.9828	0.3043	0.2773	1.6721
	b	-0.3929	0.6637	-2.0056	1.1100
	c	0.1948	0.0636	0.0757	0.3124
	rp67	-0.1519	0.6438	-1.5934	1.2784
<i>Implied Meaning</i> (N = 255)	a	1.0645	0.3514	0.2505	2.3067
	b	-0.6242	0.7776	-3.2119	2.6570
	c	0.1984	0.0836	0.0256	0.4889
	rp67	-0.4066	0.7482	-2.5298	2.0499
<i>Conversation</i> (N = 217)	a	1.0841	0.3459	0.4035	2.3067
	b	-0.6637	0.7500	-3.2119	2.6570
	c	0.1955	0.0810	0.0256	0.4889
	rp67	-0.4490	0.7176	-2.5298	2.0499
<i>Lecture</i> (N = 38)	a	0.9525	0.3660	0.2505	1.6520
	b	-0.3985	0.8975	-2.6649	1.2834
	c	0.2150	0.0963	0.0368	0.4782
	rp67	-0.1646	0.8755	-2.2465	1.4208

**Table E-10 Item Parameter a Classification by Content Constraint for ACCUPLACER Reading Test**

Content	Weight	Min	Max	<= 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
<i>Information and Ideas</i>	0.5	7	11	14	75	19	1	0	0	109
<i>Rhetoric</i>	0.5	7	11	19	65	19	1	0	0	104
<i>Synthesis</i>	0.5	2	2	5	10	4	1	0	0	20
<i>Vocabulary</i>	0.5	2	4	3	23	11	1	0	0	38
<i>Overall</i>	.	.	.	41	173	53	4	0	0	271

**Table E-11 Item Parameter b Classification by Content Constraint for ACCUPLACER Reading Test**

Content	Weight	Min	Max	< = -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
Information and Ideas	0.5	7	11	0	11	46	15	13	17	5	2	109
Rhetoric	0.5	7	11	0	6	29	17	21	21	10	0	104
Synthesis	0.5	2	2	0	0	2	3	1	9	5	0	20
Vocabulary	0.5	2	4	1	2	12	7	6	4	5	1	38
Overall	.	.	.	1	19	89	42	41	51	25	3	271

**Table E-12 Item Parameter c Classification by Content Constraint for ACCUPLACER Reading Test**

Content	Weight	Min	Max	< = 0.05	0.05 to 0.10	0.10 to 0.15	0.15 to 0.20	0.20 to 0.25	0.25 to 0.30	0.30 to 0.35	0.35 to 1.0	All
Information and Ideas	0.5	7	11	1	15	30	31	16	11	4	1	109
Rhetoric	0.5	7	11	2	12	22	30	15	15	6	2	104
Synthesis	0.5	2	2	1	4	6	2	2	3	1	1	20
Vocabulary	0.5	2	4	1	2	13	7	6	4	2	3	38
Overall	.	.	.	5	33	71	70	39	33	13	7	271

**Table E-13 Item Parameter RP67 Classification by Content Constraint for ACCUPLACER Reading Test**

Content	Weight	Min	Max	< = -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
Information and Ideas	0.5	7	11	0	2	39	22	15	21	7	3	109
Rhetoric	0.5	7	11	0	0	18	21	25	26	13	1	104
Synthesis	0.5	2	2	0	0	0	2	4	4	9	1	20
Vocabulary	0.5	2	4	0	1	10	8	6	5	5	3	38
Overall	.	.	.	0	3	67	53	50	56	34	8	271

**Table E-14 Item Parameter a Classification by Content Constraint for ACCUPLACER Writing Test**

Content	Weight	Min	Max	< = 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
Expression of Ideas	0.5	14	16	43	121	33	0	0	0	197
Development	0.5	4	6	19	40	6	0	0	0	65
Organization	0.5	4	6	15	40	10	0	0	0	65
Effective Language Use	0.5	4	6	9	41	17	0	0	0	67

(Continued)

(Continued from Previous)

Content	Weight	Min	Max	<= 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
<b>Standard English Conventions</b>	0.5	9	11	35	82	16	0	0	0	133
<i>Sentence Structure</i>	0.5	2	3	8	16	5	0	0	0	29
<i>Conventions of Usage</i>	0.5	2	3	14	21	2	0	0	0	37
<i>Conventions of Punctuation</i>	0.5	4	6	13	45	9	0	0	0	67

**Table E-15 Item Parameter b Classification by Content Constraint for ACCUPLACER Writing Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<b>Expression of Ideas</b>	0.5	14	16	0	6	56	35	35	44	17	4	197
<i>Development</i>	0.5	4	6	0	1	26	11	8	14	4	1	65
<i>Organization</i>	0.5	4	6	0	2	11	16	14	13	7	2	65
<i>Effective Language Use</i>	0.5	4	6	0	3	19	8	13	17	6	1	67
<b>Standard English Conventions</b>	0.5	9	11	0	6	25	21	20	34	23	4	133
<i>Sentence Structure</i>	0.5	2	3	0	2	5	6	4	7	5	0	29
<i>Conventions of Usage</i>	0.5	2	3	0	1	9	9	8	7	3	0	37
<i>Conventions of Punctuation</i>	0.5	4	6	0	3	11	6	8	20	15	4	67

**Table E-16 Item Parameter c Classification by Content Constraint for ACCUPLACER Writing Test**

Content	Weight	Min	Max	<= 0.05	0.05 to 0.10	0.10 to 0.15	0.15 to 0.20	0.20 to 0.25	0.25 to 0.30	0.30 to 0.35	0.35 to 1.0	All
<b>Expression of Ideas</b>	0.5	14	16	1	28	43	42	35	21	14	13	197
<i>Development</i>	0.5	4	6	0	9	18	16	8	5	4	5	65
<i>Organization</i>	0.5	4	6	0	7	11	14	13	10	6	4	65
<i>Effective Language Use</i>	0.5	4	6	1	12	14	12	14	6	4	4	67
<b>Standard English Conventions</b>	0.5	9	11	1	17	32	35	20	13	9	6	133
<i>Sentence Structure</i>	0.5	2	3	0	4	7	8	5	2	1	2	29
<i>Conventions of Usage</i>	0.5	2	3	0	8	10	9	5	2	1	2	37
<i>Conventions of Punctuation</i>	0.5	4	6	1	5	15	18	10	9	7	2	67

**Table E-17 Item Parameter RP67 Classification by Content Constraint for ACCUPLACER Writing Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<i>Expression of Ideas</i>	0.5	14	16	0	1	33	37	40	50	27	9	197
<i>Development</i>	0.5	4	6	0	0	14	16	9	17	5	4	65
<i>Organization</i>	0.5	4	6	0	0	6	11	16	18	11	3	65
<i>Effective Language Use</i>	0.5	4	6	0	1	13	10	15	15	11	2	67
<b>Standard English Conventions</b>	0.5	9	11	0	2	12	24	16	40	29	10	133
<i>Sentence Structure</i>	0.5	2	3	0	1	4	4	4	7	8	1	29
<i>Conventions of Usage</i>	0.5	2	3	0	0	2	10	7	14	2	2	37
<i>Conventions of Punctuation</i>	0.5	4	6	0	1	6	10	5	19	19	7	67

**Table E18 Item Parameter a Classification by Content Constraint for ACCUPLACER Arithmetic Test**

Content	Weight	Min	Max	<= 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
<i>Whole number operations</i>	100	3	5	8	28	3	1	0	0	40
<i>Fraction operations</i>	100	3	5	5	49	23	1	0	0	78
<i>Decimal operations</i>	100	3	5	51	116	4	0	1	0	172
<i>Percent</i>	100	3	5	22	128	15	0	0	0	165
<i>Number comparisons and equivalents</i>	100	3	5	36	85	18	2	0	0	141
<i>Overall</i>	.	.	.	122	406	63	4	1	0	596

**Table E-19 Item Parameter b Classification by Content Constraint for ACCUPLACER Arithmetic Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<i>Whole number operations</i>	100	3	5	10	11	8	5	2	2	2	0	40
<i>Fraction operations</i>	100	3	5	1	4	5	12	18	32	6	0	78
<i>Decimal operations</i>	100	3	5	17	44	50	18	29	10	2	2	172
<i>Percent</i>	100	3	5	0	12	25	21	39	44	16	8	165
<i>Number comparisons and equivalents</i>	100	3	5	16	8	18	23	21	40	10	5	141
<i>Overall</i>	.	.	.	44	79	106	79	109	128	36	15	596



**Table E-20 Item Parameter c Classification by Content Constraint for ACCUPLACER Arithmetic Test**

Content	Weight	Min	Max	<= 0.05	0.05 to 0.10	0.10 to 0.15	0.15 to 0.20	0.20 to 0.25	0.25 to 0.30	0.30 to 0.35	0.35 to 1.0	All
Whole number operations	100	3	5	0	10	13	8	4	2	2	1	40
Fraction operations	100	3	5	4	18	19	13	9	8	5	2	78
Decimal operations	100	3	5	13	23	38	35	32	16	8	7	172
Percent	100	3	5	9	18	37	29	27	21	11	13	165
Number comparisons and equivalentents	100	3	5	5	17	26	32	31	17	5	8	141
Overall	.	.	.	31	86	133	117	103	64	31	31	596

**Table E-21 Item Parameter RP67 Classification by Content Constraint for ACCUPLACER Arithmetic Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
Whole number operations	100	3	5	7	11	8	5	4	3	1	1	40
Fraction operations	100	3	5	0	3	5	9	15	35	11	0	78
Decimal operations	100	3	5	13	23	56	22	23	30	3	2	172
Percent	100	3	5	0	6	18	21	32	60	15	13	165
Number comparisons and equivalentents	100	3	5	6	14	18	16	16	49	15	7	141
Overall	.	.	.	26	57	105	73	90	177	45	23	596

**Table E-22 Item Parameter a Classification by Content Constraint for ACCUPLACER Quantitative Reasoning, Algebra, & Statistics Test**

Content	Weight	Min	Max	<= 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
Rational numbers	100	1	3	30	96	9	4	1	0	140
Ratio and proportional relationships	100	2	4	47	94	20	3	0	0	164
Exponents	100	2	3	34	88	14	5	0	0	141
Algebraic Expressions	100	2	3	46	139	29	8	2	0	224
Geometry concepts for Prealgebra	100	1	2	33	81	11	2	0	0	127
Linear equations	100	2	4	151	246	37	4	3	0	441
Linear applications and graphs	100	2	4	40	85	13	1	0	0	139
Geometry concepts for Algebra I	100	1	2	34	60	22	8	0	0	124
Descriptive statistics	100	1	3	31	55	4	0	0	0	90
Probability and sets	100	1	3	38	22	3	0	0	0	63
Overall	.	.	.	484	966	162	35	6	0	1653

**Table E-23 Item Parameter b Classification by Content Constraint for ACCUPLACER Quantitative Reasoning, Algebra, & Statistics Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<i>Rational numbers</i>	100	1	3	2	4	22	17	23	29	33	10	140
<i>Ratio and proportional relationships</i>	100	2	4	14	21	37	23	24	23	11	11	164
<i>Exponents</i>	100	2	3	7	8	20	13	16	27	35	15	141
<i>Algebraic Expressions</i>	100	2	3	6	20	30	17	14	55	53	29	224
<i>Geometry concepts for Prealgebra</i>	100	1	2	9	9	23	6	9	30	20	21	127
<i>Linear equations</i>	100	2	4	17	20	55	37	52	98	91	71	441
<i>Linear applications and graphs</i>	100	2	4	1	3	7	4	6	31	44	43	139
<i>Geometry concepts for Algebra 1</i>	100	1	2	1	2	10	4	8	28	41	30	124
<i>Descriptive statistics</i>	100	1	3	11	7	15	4	8	16	18	11	90
<i>Probability and sets</i>	100	1	3	2	3	11	8	3	11	10	15	63
<i>Overall</i>	.	.	.	70	97	230	133	163	348	356	256	1653

**Table E-24 Item Parameter c Classification by Content Constraint for ACCUPLACER Quantitative Reasoning, Algebra, & Statistics Test**

Content	Weight	Min	Max	<= 0.05	0.05 to 0.10	0.10 to 0.15	0.15 to 0.20	0.20 to 0.25	0.25 to 0.30	0.30 to 0.35	0.35 to 1.0	All
<i>Rational numbers</i>	100	1	3	4	10	25	41	20	16	8	16	140
<i>Ratio and proportional relationships</i>	100	2	4	10	20	34	49	22	14	6	9	164
<i>Exponents</i>	100	2	3	6	9	26	43	28	19	8	2	141
<i>Algebraic Expressions</i>	100	2	3	11	34	59	54	38	15	5	8	224
<i>Geometry concepts for Prealgebra</i>	100	1	2	6	16	30	27	19	15	9	5	127
<i>Linear equations</i>	100	2	4	10	36	106	127	80	53	17	12	441
<i>Linear applications and graphs</i>	100	2	4	2	9	25	43	30	15	9	6	139
<i>Geometry concepts for Algebra 1</i>	100	1	2	2	13	33	27	23	11	8	7	124
<i>Descriptive statistics</i>	100	1	3	7	15	20	19	9	11	5	4	90
<i>Probability and sets</i>	100	1	3	0	9	16	15	10	7	3	3	63
<i>Overall</i>	.	.	.	58	171	374	445	279	176	78	72	1653

**Table E-25 Item Parameter RP67 Classification by Content Constraint for ACCUPLACER Quantitative Reasoning, Algebra, & Statistics Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<i>Rational numbers</i>	100	1	3	2	2	18	8	21	41	33	15	140
<i>Ratio and proportional relationships</i>	100	2	4	2	23	31	23	21	31	19	14	164
<i>Exponents</i>	100	2	3	5	3	17	13	15	32	32	24	141
<i>Algebraic Expressions</i>	100	2	3	1	11	32	14	17	56	51	42	224
<i>Geometry concepts for Prealgebra</i>	100	1	2	4	9	15	11	9	25	25	29	127
<i>Linear equations</i>	100	2	4	7	16	32	42	42	99	109	94	441
<i>Linear applications and graphs</i>	100	2	4	0	3	3	5	4	24	48	52	139
<i>Geometry concepts for Algebra 1</i>	100	1	2	0	2	3	7	8	16	45	43	124
<i>Descriptive statistics</i>	100	1	3	7	7	11	7	7	16	17	18	90
<i>Probability and sets</i>	100	1	3	1	2	4	10	5	10	14	17	63
<i>Overall</i>	.	.	.	29	78	166	140	149	350	393	348	1653

**Table E-26 Item Parameter a Classification by Content Constraint for ACCUPLACER Advanced Algebra and Functions Test**

Content	Weight	Min	Max	<= 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
<i>Linear equations</i>	100	2	3	151	246	37	4	3	0	441
<i>Linear applications and graphs</i>	100	2	3	40	85	13	1	0	0	139
<i>Factoring</i>	100	1	3	27	121	26	2	0	0	176
<i>Quadratics</i>	100	2	4	70	96	21	4	0	0	191
<i>Geometry concepts for Algebra 1</i>	100	1	2	34	60	22	8	0	0	124
<i>Functions</i>	100	2	4	31	96	34	4	0	0	165
<i>Radical and rational equations</i>	100	1	3	48	194	54	3	0	0	299
<i>Polynomial equations</i>	100	1	3	47	86	28	7	0	1	169
<i>Exponential and logarithmic equations and graphs</i>	100	1	3	20	19	16	3	1	0	59
<i>Geometry concepts for Algebra 2</i>	100	1	2	24	61	14	1	1	0	101
<i>Trigonometry</i>	100	1	3	37	46	14	3	0	0	100
<i>Overall</i>	.	.	.	529	1110	279	40	5	1	1964

**Table E-27 Item Parameter b Classification by Content Constraint for ACCUPLACER Advanced Algebra and Functions Test**

Content	Weight	Min	Max	< = -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<i>Linear equations</i>	100	2	3	17	20	55	37	52	98	91	71	441
<i>Linear applications and graphs</i>	100	2	3	1	3	7	4	6	31	44	43	139
<i>Factoring</i>	100	1	3	1	0	12	15	23	53	33	39	176
<i>Quadratics</i>	100	2	4	4	6	11	8	12	34	41	75	191
<i>Geometry concepts for Algebra 1</i>	100	1	2	1	2	10	4	8	28	41	30	124
<i>Functions</i>	100	2	4	0	4	7	9	12	29	42	62	165
<i>Radical and rational equations</i>	100	1	3	1	0	18	11	11	78	94	86	299
<i>Polynomial equations</i>	100	1	3	2	7	19	13	15	51	37	25	169
<i>Exponential and logarithmic equations and graphs</i>	100	1	3	0	2	6	3	5	6	7	30	59
<i>Geometry concepts for Algebra 2</i>	100	1	2	2	2	8	15	9	20	27	18	101
<i>Trigonometry</i>	100	1	3	0	0	2	1	5	5	21	66	100
<i>Overall</i>	.	.	.	29	46	155	120	158	433	478	545	1964

**Table E-28 Item Parameter c Classification by Content Constraint for ACCUPLACER Advanced Algebra and Functions Test**

Content	Weight	Min	Max	< = 0.05	0.05 to 0.10	0.10 to 0.15	0.15 to 0.20	0.20 to 0.25	0.25 to 0.30	0.30 to 0.35	0.35 to 1.0	All
<i>Linear equations</i>	100	2	3	10	36	106	127	80	53	17	12	441
<i>Linear applications and graphs</i>	100	2	3	2	9	25	43	30	15	9	6	139
<i>Factoring</i>	100	1	3	1	13	30	43	43	25	10	11	176
<i>Quadratics</i>	100	2	4	1	23	26	52	35	30	12	12	191
<i>Geometry concepts for Algebra 1</i>	100	1	2	2	13	33	27	23	11	8	7	124
<i>Functions</i>	100	2	4	3	21	31	36	35	16	13	10	165
<i>Radical and rational equations</i>	100	1	3	5	34	69	67	60	47	9	8	299
<i>Polynomial equations</i>	100	1	3	10	37	31	35	22	15	9	10	169
<i>Exponential and logarithmic equations and graphs</i>	100	1	3	0	6	14	17	10	7	1	4	59
<i>Geometry concepts for Algebra 2</i>	100	1	2	3	13	30	22	14	7	7	5	101
<i>Trigonometry</i>	100	1	3	3	15	16	27	20	11	3	5	100
<i>Overall</i>	.	.	.	40	220	411	496	372	237	98	90	1964

**Table E-29 Item Parameter RP67 Classification by Content Constraint for ACCUPLACER Advanced Algebra and Functions Test**

Content	Weight	Min	Max	< = -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<i>Linear equations</i>	100	2	3	7	16	32	42	42	99	109	94	441
<i>Linear applications and graphs</i>	100	2	3	0	3	3	5	4	24	48	52	139
<i>Factoring</i>	100	1	3	0	1	9	9	12	59	40	46	176
<i>Quadratics</i>	100	2	4	2	3	7	7	12	26	39	95	191
<i>Geometry concepts for Algebra 1</i>	100	1	2	0	2	3	7	8	16	45	43	124
<i>Functions</i>	100	2	4	0	0	7	6	7	30	42	73	165
<i>Radical and rational equations</i>	100	1	3	1	1	6	10	13	52	106	110	299
<i>Polynomial equations</i>	100	1	3	1	3	11	12	13	54	37	38	169
<i>Exponential and logarithmic equations and graphs</i>	100	1	3	0	0	3	5	2	8	8	33	59
<i>Geometry concepts for Algebra 2</i>	100	1	2	1	1	4	9	14	18	25	29	101
<i>Trigonometry</i>	100	1	3	0	0	0	0	2	5	16	77	100
<i>Overall</i>	.	.	.	12	30	85	112	129	391	515	690	1964

**Table E-30 Item Parameter a Classification by Content Constraint for ACCUPLACER ESL Reading Skills Test**

Content	Weight	Min	Max	< = 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
<i>Literal Comprehension</i>	5	6	14	3	37	35	16	0	0	91
<b>*One-question passage*</b>	20	6	6	3	37	35	16	0	0	91
<i>Science</i>	20	2	5	0	11	9	4	0	0	24
<i>History/Social Science</i>	10	2	5	1	1	5	1	0	0	8
<i>Art/Humanities</i>	5	2	5	0	9	5	4	0	0	18
<i>Narratives</i>	10	2	5	2	7	5	2	0	0	16
<i>Psychology/Human Relations</i>	5	2	5	0	4	7	3	0	0	14
<i>Practical Situations</i>	10	2	5	0	5	4	2	0	0	11
<b>Inference</b>	5	6	14	7	43	26	16	2	0	94
<b>*One-question passage*</b>	20	6	6	3	28	16	7	2	0	56
<i>Science</i>	20	2	5	2	5	1	2	0	0	10
<i>History/Social Science</i>	10	2	5	0	7	3	1	0	0	11
<i>Art/Humanities</i>	5	2	5	1	8	4	2	1	0	16
<i>Narratives</i>	10	2	5	0	5	5	1	1	0	12
<i>Psychology/Human Relations</i>	5	2	5	0	2	2	1	0	0	5
<i>Practical Situations</i>	10	2	5	0	1	1	0	0	0	2
<b>*Two-question passage*</b>	20	7	7	4	15	10	9	0	0	38
<i>Science</i>	20	2	5	0	3	6	3	0	0	12
<i>History/Social Science</i>	10	2	5	0	4	0	0	0	0	4

(Continued)

(Continued from Previous)

Content	Weight	Min	Max	<= 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
Art/Humanities	5	2	5	1	3	0	1	0	0	5
Narratives	10	2	5	2	3	0	0	0	0	5
Psychology/Human Relations	5	2	5	0	2	1	1	0	0	4
Practical Situations	10	2	5	1	0	3	4	0	0	8

**Table E-31 Item Parameter b Classification by Content Constraint for ACCUPLACER ESL Reading Skills Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<b>Literal Comprehension</b>	5	6	14	3	6	25	28	16	12	0	1	91
<b>*One-question passage*</b>	20	6	6	3	6	25	28	16	12	0	1	91
Science	20	2	5	0	1	6	8	3	6	0	0	24
History/Social Science	10	2	5	0	1	1	3	2	1	0	0	8
Art/Humanities	5	2	5	0	0	5	5	4	4	0	0	18
Narratives	10	2	5	2	2	4	5	2	0	0	1	16
Psychology/Human Relations	5	2	5	0	1	6	4	2	1	0	0	14
Practical Situations	10	2	5	1	1	3	3	3	0	0	0	11
<b>Inference</b>	5	6	14	1	3	26	20	25	15	4	0	94
<b>*One-question passage*</b>	20	6	6	0	1	15	8	17	13	2	0	56
Science	20	2	5	0	0	3	1	2	4	0	0	10
History/Social Science	10	2	5	0	0	1	2	5	2	1	0	11
Art/Humanities	5	2	5	0	0	5	3	4	4	0	0	16
Narratives	10	2	5	0	0	3	2	5	2	0	0	12
Psychology/Human Relations	5	2	5	0	1	2	0	0	1	1	0	5
Practical Situations	10	2	5	0	0	1	0	1	0	0	0	2
<b>*Two-question passage*</b>	20	7	7	1	2	11	12	8	2	2	0	38
Science	20	2	5	0	0	2	6	3	1	0	0	12
History/Social Science	10	2	5	0	0	1	1	2	0	0	0	4
Art/Humanities	5	2	5	0	0	2	1	1	0	1	0	5
Narratives	10	2	5	1	1	0	2	0	0	1	0	5
Psychology/Human Relations	5	2	5	0	0	1	1	1	1	0	0	4
Practical Situations	10	2	5	0	1	5	1	1	0	0	0	8

**Table E-32 Item Parameter c Classification by Content Constraint for ACCUPLACER ESL Reading Skills Test**

Content	Weight	Min	Max	<= 0.05	0.05 to 0.10	0.10 to 0.15	0.15 to 0.20	0.20 to 0.25	0.25 to 0.30	0.30 to 0.35	0.35 to 1.0	All
<b>Literal Comprehension</b>	5	6	14	1	6	9	12	59	2	0	2	91
<b>*One-question passage*</b>	20	6	6	1	6	9	12	59	2	0	2	91
Science	20	2	5	0	2	3	2	16	1	0	0	24
History/Social Science	10	2	5	0	0	1	1	6	0	0	0	8
Art/Humanities	5	2	5	1	0	2	5	9	0	0	1	18
Narratives	10	2	5	0	0	3	3	10	0	0	0	16
Psychology/Human Relations	5	2	5	0	4	0	1	7	1	0	1	14
Practical Situations	10	2	5	0	0	0	0	11	0	0	0	11
<b>Inference</b>	5	6	14	0	6	4	10	63	6	4	1	94
<b>*One-question passage*</b>	20	6	6	0	6	4	10	25	6	4	1	56
Science	20	2	5	0	1	1	2	5	0	1	0	10
History/Social Science	10	2	5	0	1	1	3	3	2	0	1	11
Art/Humanities	5	2	5	0	2	0	2	7	3	2	0	16
Narratives	10	2	5	0	1	0	3	6	1	1	0	12
Psychology/Human Relations	5	2	5	0	1	2	0	2	0	0	0	5
Practical Situations	10	2	5	0	0	0	0	2	0	0	0	2
<b>*Two-question passage*</b>	20	7	7	0	0	0	0	38	0	0	0	38
Science	20	2	5	0	0	0	0	12	0	0	0	12
History/Social Science	10	2	5	0	0	0	0	4	0	0	0	4
Art/Humanities	5	2	5	0	0	0	0	5	0	0	0	5
Narratives	10	2	5	0	0	0	0	5	0	0	0	5
Psychology/Human Relations	5	2	5	0	0	0	0	4	0	0	0	4
Practical Situations	10	2	5	0	0	0	0	8	0	0	0	8

**Table E-33 Item Parameter RP67 Classification by Content Constraint for ACCUPLACER ESL Reading Skills Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<b>Literal Comprehension</b>	5	6	14	3	3	18	24	23	14	5	1	91
<b>*One-question passage*</b>	20	6	6	3	3	18	24	23	14	5	1	91
Science	20	2	5	0	0	5	6	6	5	2	0	24
History/Social Science	10	2	5	0	0	1	3	2	1	1	0	8
Art/Humanities	5	2	5	0	0	5	2	5	4	2	0	18
Narratives	10	2	5	2	2	2	5	2	2	0	1	16

(Continued)

(Continued from Previous)

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<i>Psychology/Human Relations</i>	5	2	5	0	0	3	5	4	2	0	0	14
<i>Practical Situations</i>	10	2	5	1	1	2	3	4	0	0	0	11
<b>Inference</b>	5	6	14	1	1	18	18	32	17	5	2	94
<b>*One-question passage*</b>	20	6	6	0	1	9	8	19	14	5	0	56
<i>Science</i>	20	2	5	0	0	1	2	3	3	1	0	10
<i>History/Social Science</i>	10	2	5	0	0	1	0	5	3	2	0	11
<i>Art/Humanities</i>	5	2	5	0	0	3	3	5	4	1	0	16
<i>Narratives</i>	10	2	5	0	0	3	1	6	2	0	0	12
<i>Psychology/Human Relations</i>	5	2	5	0	1	1	1	0	1	1	0	5
<i>Practical Situations</i>	10	2	5	0	0	0	1	0	1	0	0	2
<b>*Two-question passage*</b>	20	7	7	1	0	9	10	13	3	0	2	38
<i>Science</i>	20	2	5	0	0	1	6	4	1	0	0	12
<i>History/Social Science</i>	10	2	5	0	0	1	0	2	1	0	0	4
<i>Art/Humanities</i>	5	2	5	0	0	1	1	2	0	0	1	5
<i>Narratives</i>	10	2	5	1	0	1	0	2	0	0	1	5
<i>Psychology/Human Relations</i>	5	2	5	0	0	0	1	2	1	0	0	4
<i>Practical Situations</i>	10	2	5	0	0	5	2	1	0	0	0	8

**Table E-34 Item Parameter a Classification by Content Constraint for ACCUPLACER ESL Sentence Meaning Test**

Content	Weight	Min	Max	<= 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
<b>Fill in the Blank</b>	1	7	13	17	64	56	5	0	0	142
<i>Particles, phrasal verbs, prepositions</i>	20	2	6	3	19	10	1	0	0	33
<i>Adverbs, adjectives, connectives sequence</i>	5	3	8	8	16	17	2	0	0	43
<i>Basic nouns and verbs</i>	5	8	13	3	20	18	1	0	0	42
<i>Common idioms</i>	20	1	3	3	9	11	1	0	0	24
<b>4-option multiple choice</b>	1	7	13	15	72	32	2	0	0	121
<i>Particles, phrasal verbs, prepositions</i>	20	2	6	0	10	5	0	0	0	15
<i>Adverbs, adjectives, connectives sequence</i>	5	3	8	9	24	9	0	0	0	42
<i>Basic nouns and verbs</i>	5	8	13	6	21	11	2	0	0	40
<i>Common idioms</i>	20	1	3	0	17	7	0	0	0	24



**Table E-35 Item Parameter b Classification by Content Constraint for ACCUPLACER ESL Sentence Meaning Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<i>Fill in the Blank</i>	1	7	13	0	21	39	18	29	28	6	1	142
<i>Particles, phrasal verbs, prepositions</i>	20	2	6	0	0	6	4	9	13	1	0	33
<i>Adverbs, adjectives, connectives sequence</i>	5	3	8	0	6	16	8	7	4	1	1	43
<i>Basic nouns and verbs</i>	5	8	13	0	13	14	3	7	4	1	0	42
<i>Common idioms</i>	20	1	3	0	2	3	3	6	7	3	0	24
<b>4-option multiple choice</b>	1	7	13	0	17	50	21	15	12	5	1	121
<i>Particles, phrasal verbs, prepositions</i>	20	2	6	0	0	8	4	2	0	0	1	15
<i>Adverbs, adjectives, connectives sequence</i>	5	3	8	0	4	16	8	6	5	3	0	42
<i>Basic nouns and verbs</i>	5	8	13	0	11	16	6	3	3	1	0	40
<i>Common idioms</i>	20	1	3	0	2	10	3	4	4	1	0	24

**Table E-36 Item Parameter c Classification by Content Constraint for ACCUPLACER ESL Sentence Meaning Test**

Content	Weight	Min	Max	<= 0.05	0.05 to 0.10	0.10 to 0.15	0.15 to 0.20	0.20 to 0.25	0.25 to 0.30	0.30 to 0.35	0.35 to 1.0	All
<i>Fill in the Blank</i>	1	7	13	2	19	42	36	19	14	5	5	142
<i>Particles, phrasal verbs, prepositions</i>	20	2	6	0	1	10	7	5	5	2	3	33
<i>Adverbs, adjectives, connectives sequence</i>	5	3	8	0	10	13	13	4	2	1	0	43
<i>Basic nouns and verbs</i>	5	8	13	2	7	13	7	6	3	2	2	42
<i>Common idioms</i>	20	1	3	0	1	6	9	4	4	0	0	24
<b>4-option multiple choice</b>	1	7	13	3	19	45	28	17	5	2	2	121
<i>Particles, phrasal verbs, prepositions</i>	20	2	6	0	0	4	3	4	2	1	1	15
<i>Adverbs, adjectives, connectives sequence</i>	5	3	8	1	7	19	6	8	1	0	0	42
<i>Basic nouns and verbs</i>	5	8	13	1	12	10	11	3	1	1	1	40
<i>Common idioms</i>	20	1	3	1	0	12	8	2	1	0	0	24

**Table E-37 Item Parameter RP67 Classification by Content Constraint for ACCUPLACER ESL Sentence Meaning Test**

Content	Weight	Min	Max	< = -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<i>Fill in the Blank</i>	1	7	13	0	13	37	15	29	39	8	1	142
<i>Particles, phrasal verbs, prepositions</i>	20	2	6	0	0	5	3	8	15	2	0	33
<i>Adverbs, adjectives, connectives sequence</i>	5	3	8	0	4	14	7	8	7	2	1	43
<i>Basic nouns and verbs</i>	5	8	13	0	7	18	3	5	8	1	0	42
<i>Common idioms</i>	20	1	3	0	2	0	2	8	9	3	0	24
<b>4-option multiple choice</b>	1	7	13	0	2	44	30	17	19	7	2	121
<i>Particles, phrasal verbs, prepositions</i>	20	2	6	0	0	5	7	1	1	0	1	15
<i>Adverbs, adjectives, connectives sequence</i>	5	3	8	0	0	14	9	6	8	4	1	42
<i>Basic nouns and verbs</i>	5	8	13	0	2	19	7	6	5	1	0	40
<i>Common idioms</i>	20	1	3	0	0	6	7	4	5	2	0	24

**Table E-38 Item Parameter a Classification by Content Constraint for ACCUPLACER ESL Language Use Test**

Content	Weight	Min	Max	< = 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
<i>Fill in the Blank</i>	20	10	10	30	104	24	10	0	0	168
<i>Noun</i>	15	2	3	9	17	3	4	0	0	33
<i>Sentence Structure</i>	15	4	5	4	23	7	0	0	0	34
<i>Subject-Verb Agreement</i>	20	2	2	4	12	5	0	0	0	21
<i>Adjective/Adverb</i>	20	2	3	4	15	2	2	0	0	23
<i>Verbs</i>	10	4	4	5	30	7	3	0	0	45
<i>Subordination and Coordination</i>	5	3	4	4	7	0	1	0	0	12
<b>Sentence Combining</b>	20	10	10	23	58	14	6	0	0	101
<i>Noun</i>	15	2	3	3	4	1	0	0	0	8
<i>Sentence Structure</i>	15	4	5	4	14	5	2	0	0	25
<i>Subject-Verb Agreement</i>	20	2	2	2	4	1	0	0	0	7
<i>Adjective/Adverb</i>	20	2	3	2	6	0	1	0	0	9
<i>Verbs</i>	10	4	4	2	6	2	0	0	0	10
<i>Subordination and Coordination</i>	5	3	4	10	24	5	3	0	0	42

**Table E-39 Item Parameter b Classification by Content Constraint for ACCUPLACER ESL Language Use Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<b>Fill in the Blank</b>	20	10	10	8	27	51	29	22	26	5	0	168
<i>Noun</i>	15	2	3	2	7	13	5	2	3	1	0	33
<i>Sentence Structure</i>	15	4	5	2	6	9	6	3	6	2	0	34
<i>Subject-Verb Agreement</i>	20	2	2	1	4	2	4	6	3	1	0	21
<i>Adjective/Adverb</i>	20	2	3	0	3	10	3	3	4	0	0	23
<i>Verbs</i>	10	4	4	0	4	16	10	6	8	1	0	45
<i>Subordination and Coordination</i>	5	3	4	3	3	1	1	2	2	0	0	12
<b>Sentence Combining</b>	20	10	10	0	16	31	25	15	10	1	3	101
<i>Noun</i>	15	2	3	0	1	3	4	0	0	0	0	8
<i>Sentence Structure</i>	15	4	5	0	3	8	4	6	4	0	0	25
<i>Subject-Verb Agreement</i>	20	2	2	0	4	0	3	0	0	0	0	7
<i>Adjective/Adverb</i>	20	2	3	0	1	5	2	1	0	0	0	9
<i>Verbs</i>	10	4	4	0	1	1	1	4	1	0	2	10
<i>Subordination and Coordination</i>	5	3	4	0	6	14	11	4	5	1	1	42

**Table E-40 Item Parameter c Classification by Content Constraint for ACCUPLACER ESL Language Use Test**

Content	Weight	Min	Max	<= 0.05	0.05 to 0.10	0.10 to 0.15	0.15 to 0.20	0.20 to 0.25	0.25 to 0.30	0.30 to 0.35	0.35 to 1.0	All
<b>Fill in the Blank</b>	20	10	10	42	36	22	42	4	6	3	13	168
<i>Noun</i>	15	2	3	7	8	4	6	0	2	2	4	33
<i>Sentence Structure</i>	15	4	5	6	4	6	14	1	0	1	2	34
<i>Subject-Verb Agreement</i>	20	2	2	3	7	3	4	2	0	0	2	21
<i>Adjective/Adverb</i>	20	2	3	8	5	4	4	0	1	0	1	23
<i>Verbs</i>	10	4	4	16	8	4	11	1	2	0	3	45
<i>Subordination and Coordination</i>	5	3	4	2	4	1	3	0	1	0	1	12
<b>Sentence Combining</b>	20	10	10	29	18	12	30	2	4	3	3	101
<i>Noun</i>	15	2	3	4	1	1	2	0	0	0	0	8
<i>Sentence Structure</i>	15	4	5	5	4	4	10	0	1	0	1	25
<i>Subject-Verb Agreement</i>	20	2	2	1	2	0	4	0	0	0	0	7
<i>Adjective/Adverb</i>	20	2	3	6	2	0	1	0	0	0	0	9
<i>Verbs</i>	10	4	4	2	2	0	5	1	0	0	0	10
<i>Subordination and Coordination</i>	5	3	4	11	7	7	8	1	3	3	2	42

**Table E-41 Item Parameter RP67 Classification by Content Constraint for ACCUPLACER ESL Language Use Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<b>Fill in the Blank</b>	20	10	10	5	12	41	32	29	43	6	0	168
<i>Noun</i>	15	2	3	1	4	11	4	8	4	1	0	33
<i>Sentence Structure</i>	15	4	5	1	3	10	4	5	10	1	0	34
<i>Subject-Verb Agreement</i>	20	2	2	1	1	5	2	3	8	1	0	21
<i>Adjective/Adverb</i>	20	2	3	0	1	3	7	5	6	1	0	23
<i>Verbs</i>	10	4	4	0	0	11	13	7	13	1	0	45
<i>Subordination and Coordination</i>	5	3	4	2	3	1	2	1	2	1	0	12
<b>Sentence Combining</b>	20	10	10	0	3	35	14	17	25	3	4	101
<i>Noun</i>	15	2	3	0	0	4	0	2	2	0	0	8
<i>Sentence Structure</i>	15	4	5	0	2	7	3	5	7	1	0	25
<i>Subject-Verb Agreement</i>	20	2	2	0	1	3	1	0	1	0	1	7
<i>Adjective/Adverb</i>	20	2	3	0	0	4	1	2	2	0	0	9
<i>Verbs</i>	10	4	4	0	0	2	0	2	4	0	2	10
<i>Subordination and Coordination</i>	5	3	4	0	0	15	9	6	9	2	1	42

**Table E-42 Item Parameter a Classification by Content Constraint for ACCUPLACER ESL Listening Test**

Content	Weight	Min	Max	<= 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	2.0 to 2.5	> 2.5	All
<b>Literal Comprehension</b>	1	8	12	9	98	123	39	7	0	276
<i>Conversation</i>	1	14	16	8	73	110	35	7	0	233
<i>Lecture</i>	1	4	6	1	25	13	4	0	0	43
<b>Implied Meaning</b>	1	8	12	12	99	118	24	2	0	255
<i>Conversation</i>	1	14	16	8	79	107	21	2	0	217
<i>Lecture</i>	1	4	6	4	20	11	3	0	0	38

**Table E-43 Item Parameter b Classification by Content Constraint for ACCUPLACER ESL Listening Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<b>Literal Comprehension</b>	1	8	12	0	31	147	46	33	18	0	1	276
<i>Conversation</i>	1	14	16	0	29	130	33	25	15	0	1	233
<i>Lecture</i>	1	4	6	0	2	17	13	8	3	0	0	43
<b>Implied Meaning</b>	1	8	12	2	27	125	55	23	19	3	1	255
<i>Conversation</i>	1	14	16	1	25	110	46	21	10	3	1	217
<i>Lecture</i>	1	4	6	1	2	15	9	2	9	0	0	38

**Table E-44 Item Parameter c Classification by Content Constraint for ACCUPLACER ESL Listening Test**

Content	Weight	Min	Max	<= 0.05	0.05 to 0.10	0.10 to 0.15	0.15 to 0.20	0.20 to 0.25	0.25 to 0.30	0.30 to 0.35	0.35 to 1.0	All
<i>Literal Comprehension</i>	1	8	12	3	14	57	74	65	36	15	12	276
<i>Conversation</i>	1	14	16	3	12	48	61	55	30	12	12	233
<i>Lecture</i>	1	4	6	0	2	9	13	10	6	3	0	43
<i>Implied Meaning</i>	1	8	12	5	15	55	71	56	29	8	16	255
<i>Conversation</i>	1	14	16	4	13	50	58	51	22	7	12	217
<i>Lecture</i>	1	4	6	1	2	5	13	5	7	1	4	38

**Table E-45 Item Parameter RP67 Classification by Content Constraint for ACCUPLACER ESL Listening Test**

Content	Weight	Min	Max	<= -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	> 2.5	All
<i>Literal Comprehension</i>	1	8	12	0	9	139	61	39	25	2	1	276
<i>Conversation</i>	1	14	16	0	8	125	49	30	18	2	1	233
<i>Lecture</i>	1	4	6	0	1	14	12	9	7	0	0	43
<i>Implied Meaning</i>	1	8	12	1	8	114	66	41	21	4	0	255
<i>Conversation</i>	1	14	16	1	7	101	56	35	13	4	0	217
<i>Lecture</i>	1	4	6	0	1	13	10	6	8	0	0	38

Figure E-1: ACCUPLACER Reading Test- Test Characteristic Curve and Test Information Function Plots

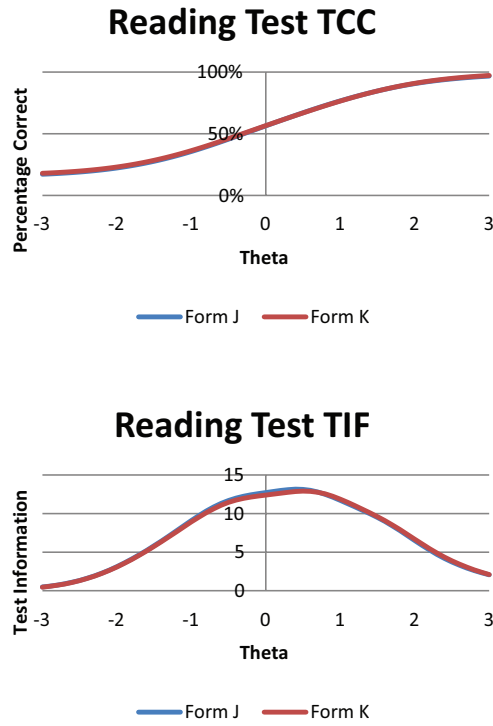
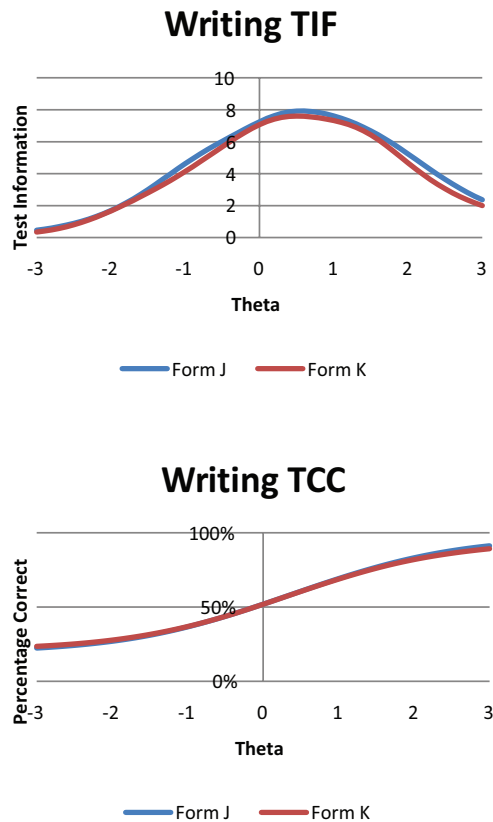
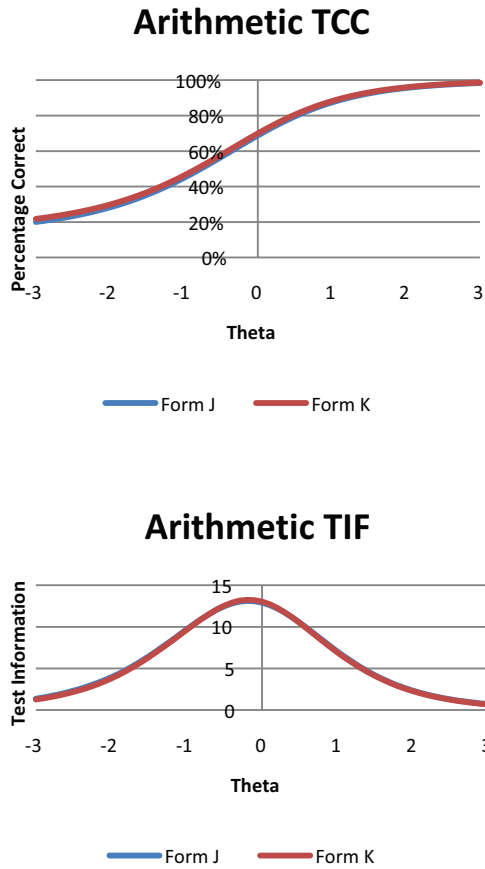


Figure E-2: ACCUPLACER Writing Test- Test Characteristic Curve and Test Information Function Plots



**Figure E-3: ACCUPLACER Arithmetic Test- Test Characteristic Curve and Test Information Function Plots**



**Figure E-4: ACCUPLACER Quantitative Reasoning, Algebra, & Statistics Test- Test Characteristic Curve and Test Information Function Plots**

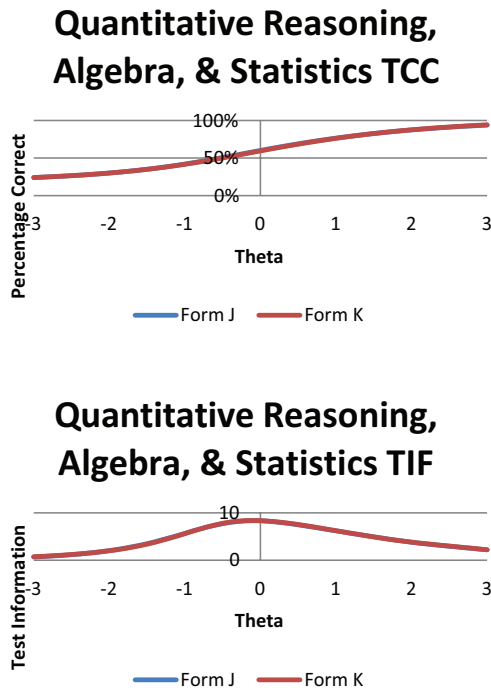


Figure E-5: ACCUPLACER Advanced Algebra and Functions Test- Test Characteristic Curve and Test Information Function Plots

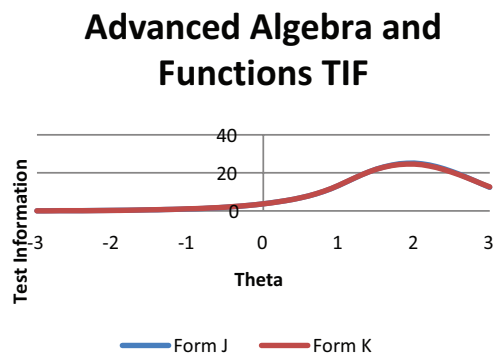
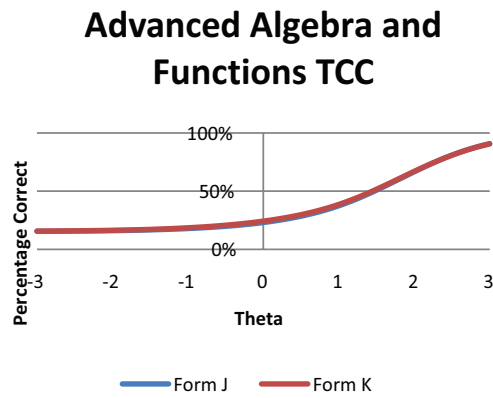


Figure E-6: ACCUPLACER ESL Reading Skills Test- Test Characteristic Curve and Test Information Function Plots

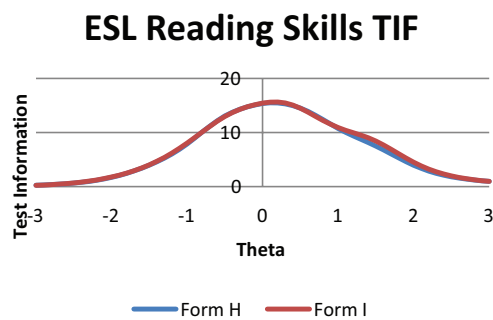
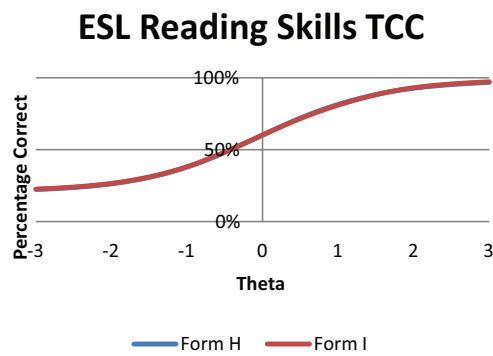




Figure E-7: ACCUPLACER ESL Sentence Meaning Test- Test Characteristic Curve and Test Information Function Plots

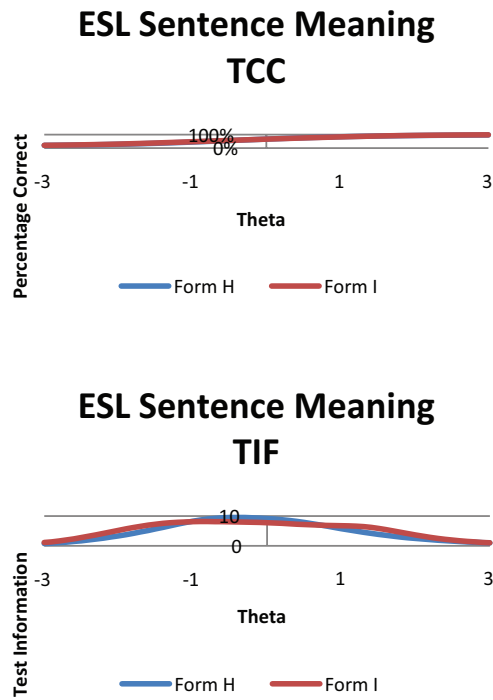


Figure E-8: ACCUPLACER ESL Language Use Test- Test Characteristic Curve and Test Information Function Plots

