2017-2018 WCSD AP Statistics Program Evaluation Rubric

Evaluator Number

3

Program Number

2

Name of Text

Stats Modeling The World

Publisher

Pearson

Rate This Text Overall

- [x] **High**
- [ ] **Mid**
- [ ] **Low**

Focus: Evaluate the table of contents and any pacing guides. Do not stop there; also evaluate units, chapters, and lessons. (Both student and teacher materials)

Exploring Data

Defining variables
Constructing and interpreting graphical displays of distributions of univariate data (dotplot, stemplot, histogram, cumulative frequency plot)!Summarizing distributions of univariate data Comparing distribution of univariate data (dotplots, back-to-back stemplots, parallel boxplots) Exploring bivariate data
Exploring categorical data

Sampling and Experimentation: Planning and conducting a study

Overview of methods of data collection
Planning and conducting surveys
Planning and conducting experiments
Generalizability of results and types of conclusions that can be drawn from observational studies, experiments and surveys
Simulation modeling

Anticipating Patterns: Exploring random phenomena using probability and simulation

Probability
Random variables
Binomial distributions/geometric
Normal distribution
Sampling distributions

Statistical inference: Estimating population parameters and testing hypotheses

Estimation
Confidence intervals
Hypothesis tests including chi-square and regression slope

At least 90% of the topics are in the textbook.
Comments?

Yes, has the 4 main areas of AP Stats: Exploring Data, Designing studies, Anticipating Patterns, Inference. Has more material on cd for after exam: anova, multiple regression. Would like the actual data sets, when practicable, for graph examples shown in book.

- ○ **Less than 25%**
- ○ **Less than 60% but greater than 25%**
- ○ **Less than 90% but greater than 60%**
- ◉ **At least 90%**

Student work involves significant work with applications/modeling and problems that use algebra skills
Comments?

Yes, problems contain algebraic thinking and skills via expected value, probability.

- ○ **Does not occur**
- ○ **Sometimes occurs**
- ○ **Frequently occurs**
- ◉ **Consistently occurs**

There are problems at a level of sophistication appropriate to the course (beyond mere review of previous course topics) that involve the application of knowledge and skills from Algebra.
Comments?

Yes, problems require multiple steps, algorithms.

- ○ **Does not occur**
- ○ **Sometimes occurs**
- ○ **Frequently occurs**
- ◉ **Consistently occurs**

Rigor: Examine the instructional materials, student practice and assessments. Look for evidence of where the topics explicitly require students to understand concepts, do the assignments that students work on build that understanding, and do assessment tasks reveal whether students understand the mathematics in question?
Comments?

Plenty of problems, would like to see linking of problems to concepts via some code, most chapters require presentation of all chapter material before assigning problems. Would like to see sectioning with own problem sets. Many sets require familiarization with all problems as often there are 3 or 4 problems with a theme that are spaced out. This can result in over or under converge of concept

- ○ **Does not occur**
- ○ **Sometimes occurs**
- ◉ **Frequently occurs**
- ○ **Consistently occurs**

Rigor: Do the materials feature high-quality conceptual problems and conceptual discussion questions? Do they provide opportunities for multiple representations?
Comments?

Yes, most problems require explanation, many require technology. Problems have been updated and some explanation pages changed.

- ○ Does not occur
- ○ Sometimes occurs
- ○ Frequently occurs
- ◉ Consistently occurs

Rigor: Are the materials designed so that students attain the fluency and procedural skills required? Evaluate the lessons, chapter/unit assessments, daily routines, and homework assignments for evidence in the development of fluency and procedural skill supported by conceptual understanding.
Comments?

Practice exam has been added to chapters. Review problems at end of each chapter, would like coding to previous material for student reference.

- ○ Does not occur
- ○ Sometimes occurs
- ○ Frequently occurs
- ◉ Consistently occurs

Rigor: Are the materials designed so that teachers and students spend sufficient time working with applications, without losing focus on the topics defined for the course? Are there single- and multi-step contextual problems that develop the mathematics of the course, afford opportunities for practice, and engage students in problem solving?
Comments?

Supplemental materials include projects. Includes opportunity to use Math XL

- ○ Does not occur
- ○ Sometimes occurs
- ○ Frequently occurs
- ◉ Consistently occurs

Coherence: Are the materials coherent in their content, do the topics build on each other in a way that is beneficial to the instruction, student practice and assessments?
Comments?

Test questions have changed from previous edition.

- ○ Does not occur
- ○ Sometimes occurs
- ○ Frequently occurs
- ◉ Consistently occurs