2017-2018 WCSD AP Statistics Program Evaluation Rubric

Evaluator Number

11

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?

The AP guideline is located in the Test Prep Series for AP Statistics (supplemental), but it includes the chapter where each part of the guideline is located. There is extension beyond the AP guidelines located on a DVD which comes with the teacher's edition.

- ○ **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?

Most of the problems are application based, requiring students to answer in context. Basic algebra skills required.

- ○ **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?

The algebra skills required for this course are represented through the application based problems.

- ○ **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?

Comes with activities built for StatCrunch, TI-Nspire and Fathom, to investigate the changes in the summary stats when the data changes. Test Generator allows for various AP level questions to be answered, and includes a chapter by chapter guide to previous AP questions so instruction can include AP style questions.

- ○ **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?

Conceptual problems are of quality, and discussion is promoted through various activities. Multiple representations are allowed through the use of technology.

- ○ 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?

Students begin with activities in class, move to application based questions for homework, and at the end of each unit there is a review and a practice exam prior to the assessment. All appear to be in line with each other with a goal of fluency in the topic.

- ○ 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?

Most of the time in this course is spent working with applications, as is the nature of the course. There are problems that allow the students to focus on one particular portion of the chapter's objectives, and then they move into multiple step problems that require them to use all of the objectives in the chapter.

- ○ 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?

The book is sectioned into seven parts, of which each part includes 3-5 chapters, and they are coherent through these various parts, my only concern is the fact that once you leave a particular unit the concepts are not necessarily revisited.

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