



## Academic Writing Podcast 23 – Statistics Part 2

### Sample Text

A child's development varies from family to family, but there are incidences when their behaviour is seen **to deviate from the norm**. Researchers have found a positive **correlation** between a child whose parents often speak to them from a young age, and the speed of their vocal development. There are of course **extremes at both ends** of the range, where we see children whose parents rarely interact with their offspring and, as a result, learn to speak at a much later age. Reliable evidence shows that babies **tend to** start their vocal development at the age of around 6-9 months, when they begin to try and communicate with others around them. At that age, babies **tend towards** familiar adults and shy away from strangers. This is **consistent** with their new-found awareness of the world around them. A certain **proportion** of babies at the age of 1 year will already be able to say a few simple words, however the **ratio** of those who take several more months to begin vocalising properly is much larger. Due to the sheer **volume of** words in the English language, it is hardly surprising that some babies take many months to develop their speech faculties successfully.

### Glossary

#### 1) to deviate from the norm

*to be different from, or do something in a different way from what is usual or expected*

- While the term “nontraditional” connotes an image of a student who **deviates from the norm**, research shows that most community college students are nontraditional in some sense, and, therefore, are the norm for their environment.
- In recent years, the practice of music therapy has expanded to include service to groups that, while not traditionally included among the handicapped, still **deviate from the norm** in some substantial way.
- This is not surprising as it is well established that higher status athletes are given more latitude to **deviate from the norm** (respectful behavior toward a game official) than are



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those of lesser status (though the high school federation rule book makes no such distinction).

### 2) to correlate with (correlation)

*to be closely connected to and affect or depend on something*

- A high-fat diet **correlates with** a greater risk of heart disease.
- Anatomical changes in the brain are **correlated with** predictable effects on behavior.
- In the study discussed here, cosmic ray density data were **correlated with** the U.S. infant mortality rate.

### 3) extremes of the range

*the largest or smallest element in a range of values*

- The average size of a South Sea pearl is 13mm, with the **extremes in a range** of sizes from 9mm up to 20mm.
- Music for the French horn which includes very quiet passages should not be written for the top or bottom **extremes of the instrument's range**.
- In the **extremes of the range**, the night winter temperatures may drop to a dry 32 degrees Fahrenheit (= 0 degrees Celsius).

### 4) to show (indicate) a tendency

*to be likely to behave or act in a particular way*

- Using a field systems analysis methodology, the investigator was able to **show a tendency** of the urban teacher to focus on management while the suburban teacher emphasized instructional outcomes more than his counterpart.
- The slower pace of unloading the stance leg ( $p < 0.01$ ) in amputees, together with the previous results, **indicate a tendency** for slower and more careful gait.
- Furthermore, there was **a tendency** for student responses to be more polarized in online courses than in traditional, face-to-face courses (Riffell and Sibley, 2005).

### 5) Reliable

*able to be trusted to do something well; able to be relied upon. Or, likely to be correct or true*

- Equally important is the need to create a **reliable** judicial process that will prosecute captured pirates and impose sentences that will signal to ordinary Somalis that piracy is no longer a livelihood with great rewards and few costs.
- How **reliable** is the recent finding that happy, optimistic people tend to live longer than those who see the world, in A. E. Housman's phrase, "for ill and not for good"?



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### 6) Consistent

*always behaving in the same way, or having the same opinions, standards, etc; or, not contradicting something*

- Junior high students reported increased satisfaction and exhibited better test results when placed in classrooms with teachers whom they identified as **consistent** and fair in their discipline techniques.
- Contestants in four Olympic combat sports were randomly assigned red or blue outfits; for all four competitions, there were **consistent** and statistically significant patterns in which contestants wearing red won more fights.
- The mortality rates represented in the Carthage cemetery are **consistent** with prenatal and infant mortality figures found in present-day societies.

### 7) to show a trend

*to exhibit a change or development in a general direction*

- Using a cut-off point of less or more than 10 pack years of smoking, increased prevalence of chronic cough **showed a trend** toward smoking of more than 10 pack years.
- Overall, the results of the open-ended questions **show a trend** for The University of Georgia students to own at least one of the brand-name apparel products in the study.
- Even a cursory review of the history of public school music in this century will **show a trend** toward a de-emphasis on singing in the last twenty-five years or so, particularly for those students not enrolled in performance-oriented vocal groups.

### 8) ratio vs proportion

**ratio:** *the relationship between two groups of people or things that is represented by two numbers showing how much larger one group is relative to the other*

- A **ratio** must be specifically stated— if there is a class with 6 girls and 4 boys, the ratio of girls to boys is 6:4 or 3:2. The ratio of girls to the class is 6:10 or 3/5.
- His data suggest that the **ratio** of civilian deaths to tons of ordnance dropped has actually increased in the past 20 years, as precision weapons have been introduced in greater numbers.

**proportion:** this number tells the size of a part or share relative to a whole

- Water covers a large **proportion** of the earth's surface.
- Loam is a soil with roughly equal **proportions** of clay, sand and silt.
- A higher **proportion** of Americans go on to higher education than is the case in Britain.
- If there is a class of 6 girls and 4 boys, the **proportion** of girls is 6/10 or 3/5 (of the class).

### 9) an increase in the volume of

- The U.S. intelligence community has received a substantial **increase in the volume of** threat-related intelligence reports.



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- Scientists can not pinpoint the exact cause for the rise but they hypothesize that a natural **increase in the volume of** water discharged by the Volga, the main river that flows into the Caspian, has played a role.
- The dramatic **increase in the volume of** immigration to the United States has left a distinct impression on the student populations of many community colleges.
- As age advances, there is a tendency **to increase in the volume of** hypothalamic area and consequently decrease in the neuron density.<sup>1</sup>

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<sup>1</sup> Voices: Emily Ferris and Kenny Bendiksen