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Assessment 5—Turn Raw Survey Data into a Report

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Introduction

This report examines a survey that evaluates teachers' perspectives on ChatGPT, a large language model with potential educational applications. The data provides insights into teacher demographics, familiarity with ChatGPT, perceived advantages and challenges, training requirements, and predictions regarding the future role of ChatGPT in education. By carefully analyzing the data, we wanted to produce a comprehensive and informative report on teachers' opinions about ChatGPT by looking at patterns and provide some recommendations.

Quantitative Analysis

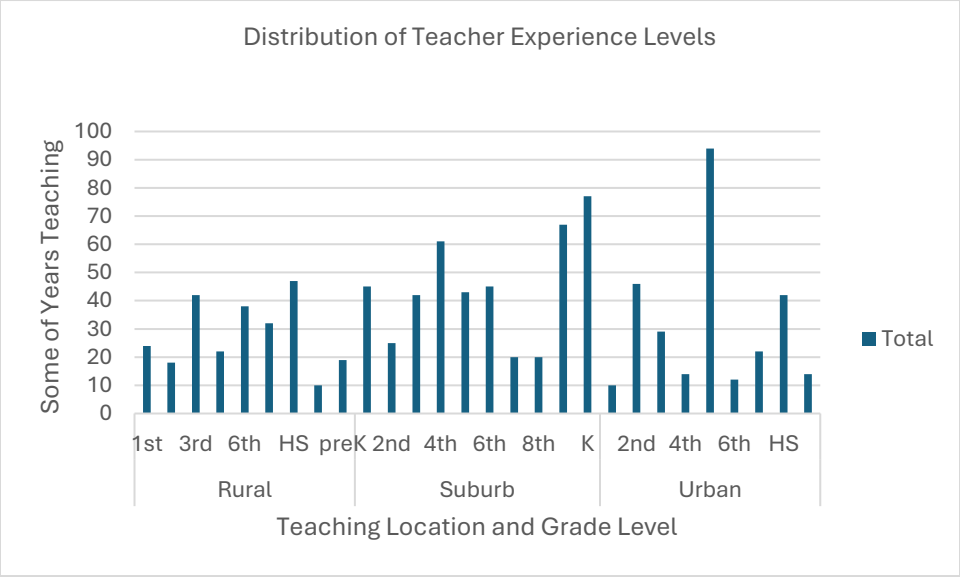
1. Description of the data in a concise way using figures and Descriptive Statistics

The data in this report was collected from a prearranged spreadsheet and conceptualized in narrative form.

The primary factors are the teacher demographics and prediction about ChatGPT. The participants studied are educators teaching grades K – 12 in rural, urban, and suburban areas. The information analyzed is produced in succinct faction articulating interesting styles and structures. The most meaningful is the characterization between the teacher's enumeration and the themes found in the prognosis concerning ChatGPT. The framework is denoted primarily for a small study in nature given by descriptive overtones. The linkages of qualitative information from open-ended interviews compare numeral data to textural data; having Likert-scaled data that gauges the collation.

The report begins by finding intervening variables, such as the participants (numeral data), having relationships with predictions about ChatGPT (textual data). The ChatGPT textual data was derived from how AI affects education (textual data). Initially, there were 100 participants but only 12 had a relationship with the data on 'how will AI affect education'. These two variables' relationships show predictions about how ChatGPT will affect education in the future. For instance, ChatGPT uses natural language management to empower human-like conversations to replicate various tasks, also, AI tools such as ChatGPT will reply to questions and assist with language learning, language processing, and considerably more. The relationship between these two variables is based on numbers (participants) and conceptualized data (prediction about ChatGPT). This is important because numbers and conceptualized data (ideal hypothesis), keep you right-mined – shielding you from creating biases, Miles & Huberman, (1994), pg. 253).

Figure 1. The bar chart below shows the frequency of teachers with different levels of experience.



2. Discussion of any interesting patterns or relationships

The chart (Figure 1) above shows that teachers with more experience may have different attitudes towards ChatGPT than those with less experience. An interesting pattern emerged when analyzing

teacher familiarity with ChatGPT relative to their years of experience. Teachers with 12 or more years of experience were generally more familiar with ChatGPT than those with less experience. This could be attributed to factors such as veteran teachers having more access to professional development opportunities that introduce emerging technologies or feeling more confident in exploring new tools.

It is identified in the data that 91%, 11 of 12 participants who were presented as variables linked to the relationship of predictions about ChatGPT either disagree or strongly disagree that 'technology has a harmful effect on children' (Likert data), used as a construct measuring the said connection. Comparing or using the aged 'method of differences' – dating back to Aristotle, Miles & Huberman, (1994), pg. 254). 88% of participants in the accompanying data on how AI affects education did not link to predictions about ChatGPT. This numeral data substantiates Aristotle's contrasting philosophy that things motion when things act upon their motions – note the 'method of differences'. Aristotle's method of differeces - Search (bing.com).

Qualitative Analysis

We developed a coding scheme based on the open-ended responses to identify recurring themes and patterns related to teachers' predictions about ChatGPT. We used Atlas.ti and applied a thematic coding method to identify recurring patterns and themes within the data. This approach is consistent with the grounded theory methodology proposed by Braun and Clarke (Bruan & Clarke, 2006, p. 80). The general themes are:

1. AI

AI represents the use of artificial intelligence. It emerged as a key theme. Most participants to the survey evaluating teachers' perspectives on ChatGPT mentioned artificial intelligence (AI). This

shows the importance of AI integration in education with its transformative potential for enhancing teaching efficiency by optimizing instructional practices (Chassignol et al., 2018).

2. AI's role

An important theme that emerged was AI's role. This theme emphasizes the reduction of teacher workload. Many teachers predict that AI will help reduce their workload so they can be more efficient.

3. Benefit

This theme highlights the time-saving aspect of AI in education and the potential for AI to promote diverse viewpoints. The sentiment leaned positive with three teachers predicting ChatGPT will revolutionize education or become a common teaching tool.

4. AI's Potential Negative Impact

Some concerns emerged with some teachers predicting unethical use as a major concern. Some teachers mentioned that AI Prioritizes grades over holistic development. They are concerned about student reliance on ChatGPT, the fact that AI highlights the importance of hands-on learning and tailoring education to individual students. They indicated a lack of awareness and experience with ChatGPT in their teaching practices.

5. AI Data Driven Policy

This theme enables personalized instruction. Teachers mentioned that AI can analyze student data to identify individual needs and preferences allowing for the development of personalized learning plans and interventions. By levering AI such as ChatGPT to analyze data, policymakers can make more informed data-driven decisions that have a positive impact on student outcomes and the overall education system.

Discussion and Recommendations

The survey results provide important insights into teachers' views on ChatGPT. While some educators are excited about its potential to personalize learning, tailor instruction, and boost engagement, others express valid concerns about issues such as academic integrity, excessive reliance on technology, and increased teacher workload.

The finding that more experienced teachers are generally more familiar with ChatGPT highlights the need for targeted professional development to close this gap and provide all educators with the opportunity to explore and effectively integrate this technology.

The most common mentioned benefit underscores the need for greater awareness and education about ChatGPT among educators. Likewise, the challenge indicates that some teachers may not yet recognize potential drawbacks associated with using ChatGPT.

The positive sentiment around ChatGPT's future potential is encouraging. However, it is essential to address concerns regarding unethical use and increased teacher workload for its responsible integration.

Based on the analysis, some recommendations to move forward are professional development (Create and implement professional development programs to introduce ChatGPT to educators and provide them with the skills needed to effectively incorporate it into their teaching practices), teacher support (Offer continuous support to teachers, including clear guidelines for appropriate usage, help with technical issues, and strategies for evaluating student learning when incorporating ChatGPT), content curation (Create curated content libraries with high-quality, trustworthy

information to mitigate concerns about the potential for unreliable content when using ChatGPT), and research on best practices (Conduct research to identify best practices for integrating ChatGPT into the classroom equitably and effectively).

References

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