



Exploring TikTok as an Appropriate Teaching Tool for Speech Language Pathologists, Special Education, and General Education Teachers

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ABSTRACT

Lectures and seminars which are commonly used in schools as teaching methods have faced criticism for lacking personal touch. The rapid growth and influence of media platforms have revolutionized how information is shared and consumed, with a particular emphasis on their integration as valuable educational tools. TikTok, a short-form video platform has gained recognition among users of all ages. While TikTok is mostly known for its viral content there is a growing interest in exploring its educational potential. This research paper focuses on examining TikTok as a teaching tool for general education teachers (GE) special education teachers (SPEDs) and speech-language pathologists (SLPs), aiming to ascertain its purpose while gauging the presence of misinformation or disinformation in educators' videos. The analysis encompassed 743 videos, revealing intriguing insights. Surprisingly, despite having less valuable content, teacher-generated TikToks had the most viewing. SPEDs and SLPs, on the other hand, took a different strategy. They provided targeted assistance to their target audience, including instructional information focused on professional growth, procedural insights, and caregiver counseling. These findings highlight TikTok's potential for enhancing educators' outreach and successfully conveying specialized information.

CCS CONCEPTS

- Human-centered computing → Interaction techniques; Collaborative interaction;
- Information systems → Specialized information retrieval; Users and interactive retrieval.

KEYWORDS

TikTok, Disinformation, Information Retrieval

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1 INTRODUCTION

The roadmap of language teaching and learning has experienced major changes in the era of the deployment of new technologies worldwide [2]. TikTok has distinguished itself among these platforms as a potent force, attracting the interest and involvement of millions of people worldwide [14]. Although TikTok is generally regarded as a platform for amusement, interest in its potential as a tool for teaching has grown, particularly among educators. A 2011 report by Moran [12] states more than 90% of all professors use social media in their classes or for their professional lives outside of the classroom. Almost two-thirds of all instructors have utilized social media in class. More than 40% of professors have required students to read or watch social media as part of a course assignment, and 20% have asked students to remark on or post on social media sites. With this advanced technology, learning through social media offers an alternative to generating academic success and engagement. Moreover, COVID-19 facilitated a significant increase in the number of educational institutions using mobile apps for teaching and learning [3]. Others, such as Instagram and Tiktok, have yet to gain recognition as alternative platforms for instruction delivery. TikTok's fast growth and growing popularity, particularly among young people, necessitates a thorough examination of its educational potential.

It is important to carefully consider the goals and veracity of the shared material. It is crucial to assess if TikTok content shared by educational experts upholds high standards of accuracy and dependability because the transmission of false information and disinformation is still a serious issue in the digital age. Research conducted by [9] stated that 41% of teenagers couldn't tell the difference between true and fake online medical content. As a preliminary and exploratory project, this research aims to analyze TikTok videos created by three different educational or instructional professionals: Speech-Language Pathologists (SLPs), General Education Teachers (GE), and Special Educational Teachers (SPEDs) to determine the function of shared content. In the following sections of this research, we will delve into the existing literature on the integration of social media and technology in education, examine previous studies exploring the use of TikTok as an educational tool, and present our own findings. In this research we have identified limitations and

challenges. Firstly it is quite challenging to create an coherent representation of TikTok videos, across professional categories because the content on the platform is diverse and constantly changing. Moreover manually coding the videos to extract themes is a time consuming task that requires an amount of resources, which can introduce subjectivity in theme identification. Lastly our access to TikTok archives is limited which restricts the breadth of data for analysis this work is novel as there is limited research investigating TikTok content for general education, special education, and SLPs. There is no research in the field of speech-language pathology evaluating TikTok as an advanced or extended intervention tool.

2 BACKGROUND

In September 2016, the Chinese company Bytedance [11] introduced a new app "Douyin". In September 2017 they re-branded it and named it "TikTok" (internationally) and kept the name "Douyin" in China. In November 2017 Bytedance bought musical.ly (a social media platform for lip-sync videos), in order to expand into the U.S. teenage market [8]. It became a social video-sharing application that allowed users to share, watch, and create short videos on any topic. Ever since then, TikTok has had massive growth and influence on our society. In 2020, TikTok grew exponentially with 850 million downloads, and became the seventh-most downloaded app in the world of the 2010s [10]. TikTok is mostly used by generation z. 47.4% of its active user base is aged between 10 and 29. TikTok has 1 billion monthly active users in the world. And in the U.S., it has 73.7 million monthly active users, and 37.36% of them access TikTok at least once a month [5].

Education should be accessible, straightforward, and beneficial. TikTok is free software that anybody with a smartphone can download, making it the ideal platform for providing instructional information at no cost and in short, digestible pieces. As of now (July 2023), the hashtags #teacher, and #teachersoftiktok have 120 billion views combined, #speechtherapy, and #slpsoftiktok have 1.5 billion views combined, lastly, #specialeducation, and #specialeducationteacher have 1 billion views combined. Because young people, students, and parents make up a substantial proportion of TikTok users, it seems sensible to use the app as an educational tool. This potential aligns well with the role of SLPs and SPED professionals, who cater to students facing learning differences or disabilities. An SLP, also known as a speech therapist [7], is a health professional who diagnoses and treats communication and swallowing problems. They work with adults and children and can be found in clinics, schools, and hospitals. They provide many services for speech disorders, i.e difficulty in producing sounds (apraxia, stuttering, dysarthria), language disorders (can be receptive (difficulty understanding language) or expressive (difficulty making oneself understood by others), cognitive-communication disorders (brain injury), social-communication disorders (having difficulty communicating in a social environment), swallowing disorders and many more [6, 13]. Moreover, SPEDs [17] are caring and highly trained professionals who help students with developmental, physical, and behavioral/emotional needs. They mainly work with children in elementary, middle, and high school. They offer a variety of services similar to GE teachers, although

they have some key distinctions including Developing and maintaining IEPs (individualized educational plans) that meet student needs by providing individualized instruction that provides accommodations, modifications or modified lessons that best meet their learning needs [13]. Lastly, by the name, GE teachers are responsible for teaching students in a variety of subjects, including math, science, English, and social studies in traditional classroom settings [15].

With TikTok's extensive use and accessibility, there is significant potential for using it as an educational tool to reach and engage young learners. SLPs and SPEDs, respectively, play essential roles in detecting and treating communication and learning issues, while GE instructors give basic knowledge across several areas. Given the enormous popularity of relevant TikTok hashtags, it is clear that there is a demand for instructional content in these areas. By investigating the perceptions, outcomes, and potential challenges associated with sharing SLP, SPED, GE content on TikTok, we can gain valuable insights into the feasibility and benefits of using TikTok for educational purposes.

3 RESEARCH QUESTION

This research aims to analyze data from different professionals (i.e. SLPs, SPEDs, GE teachers) to study how they are represented on TikTok. The research question guiding this study is:

What are the purposes of TikToks created by GE teachers, SPEDs, and SLPs?

Ultimately, this research aims to contribute to the ongoing conversation surrounding the integration of social media platforms in education and provide educators with insights to effectively utilize TikTok as a tool for instruction.

4 METHODOLOGY

To answer this research question, 743 TikTok videos were scraped, reviewed, and formally analyzed. A number of sequential approaches were employed to collect and analyze the videos generating four major coding categories for video types or purposes. First, an extensive hand search was conducted to identify and gather all relevant TikTok videos for analysis. The TikToks were also scraped using employed JSON data inspection to retrieve information from TikTok's website. By analyzing the website's underlying JSON structure, we identified key data fields and their corresponding paths. Leveraging Python and libraries such as requests and JSON, HTTP requests are generated to extract data from the website's API endpoints. Then, the JSON responses were parsed, extracting and organizing the required data for analysis. Once a CSV file of videos was developed, themes were generated to outline video content and meaning.

Next, we applied qualitative (thematic) analysis [4] by reviewing the themes and identifying four major coding categories that could be applied for video identification. Two experienced coders independently watched the collected videos and labeled the video according to the priority coding categories. Coding results were compared generating a rate of 94% inter-rater reliability ensuring validity and consistency of coding results. The coding categories included: general, demonstration, professional development, and materials.

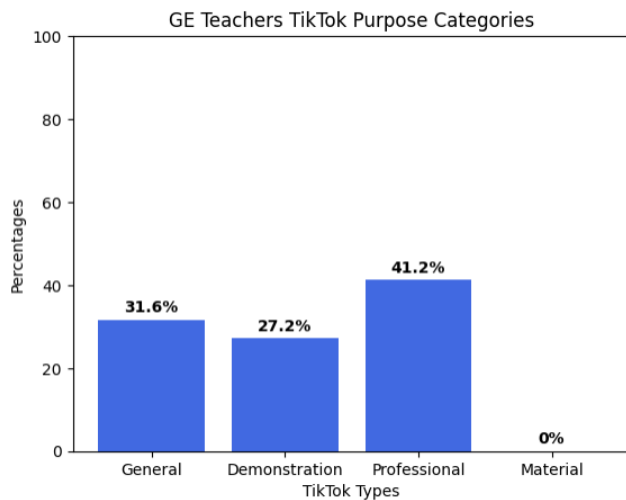


Figure 1: An Exploration of Educators' TikTok Videos as Engaging Tools for Instruction

General: The general category encompassed videos that featured content related to comedy, dancing, relationship-building, and singing.

Demonstration: The "demonstration" category focused on videos demonstrating strategies, curriculum, teaching techniques, classroom management tips, treatment examples, and educational dos and don'ts.

Professional Development: The "professional development" category included videos about graduate school tips, professional advice, job opportunities, "day in the life/outfit of the week," and personal struggles.

Material: The "Material" category included videos about games, toys, movies, and activities. Finally, a descriptive analysis was performed on the coded TikToks, and percentages for each professional were obtained, allowing for a complete assessment of the content within each category.

5 RESULTS

General education teacher TikToks are watched more frequently than SLP or SPED teacher content in terms of numerical totals (see figure 4). Based on our findings, SLPs emerged as the most active group in terms of posting content related to demonstrating facilitation or therapeutic techniques, indicating a strong focus on providing the community with valuable interventions for specific populations to implement at home. On the other hand, GE teachers predominantly shared general and anecdotal information, as well as professional development tips like reasons to become a teacher and ways to enter the teaching profession. None of the educator groups consistently or frequently posted about the materials required to engage in their respective areas of expertise. This finding suggests that while educators are actively sharing their knowledge and experiences on TikTok, there may be a relative lack of emphasis on the tangible resources needed to support their instructional methods (see figure 1).

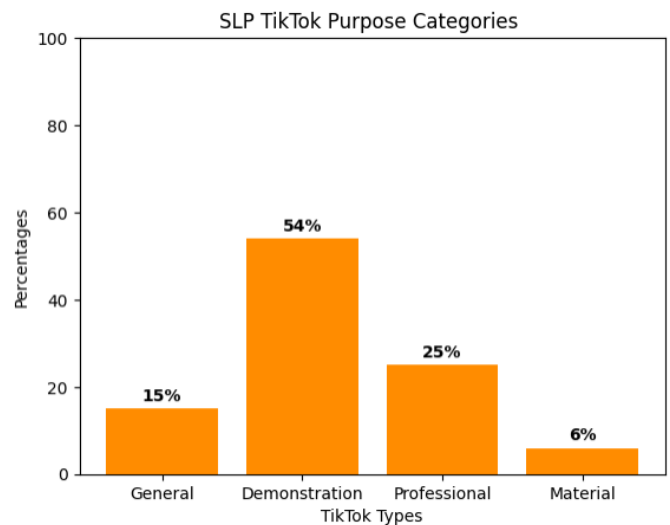


Figure 2: Illuminate: Visualizing Progress. Unveiling the Impact of SLPs' TikTok Videos as Dynamic Educational Aids

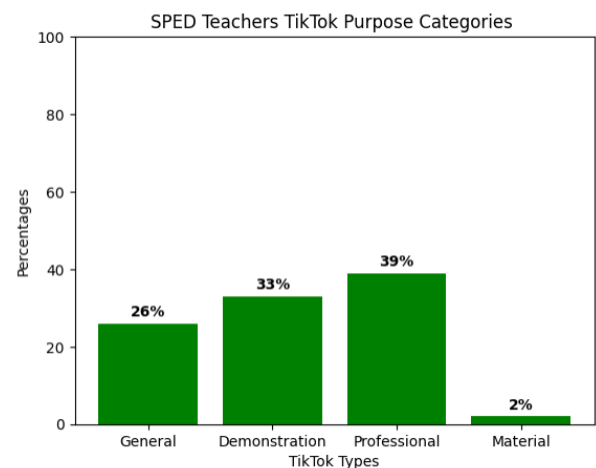


Figure 3: Visualizing Inclusivity: Unveiling the Educational Canvas - TikTok Videos by SPED Teachers Illuminate Learning Pathways

The findings indicated that GE teachers predominantly posted professional information, showcasing their expertise and insights into various aspects of the teaching profession and other relevant topics related to their roles as educators. This indicates that teachers were less likely to provide information about helpful teaching materials through their TikTok posts. This aspect highlights a potential gap in the content shared by teachers on the platform. While they excel in disseminating professional knowledge and experiences, the relatively lower focus on sharing specific teaching materials might indicate an area where the TikTok community of teachers can explore and improve their content offerings (see figure 1). The analysis of TikTok coding data for SLPs found intriguing trends in their content-sharing preferences. The data revealed that SLPs mostly released videos showcasing therapeutic techniques. This

shows a significant emphasis on demonstrating their clinical knowledge and offering useful visual examples of how to intervene and help people with communication or speech difficulties successfully. However, the study found that SLPs were less likely to share information about the materials required to enable their therapeutic aims via TikTok posts. This characteristic suggests that the content published by SLPs on the site may be improved (see figure 2).

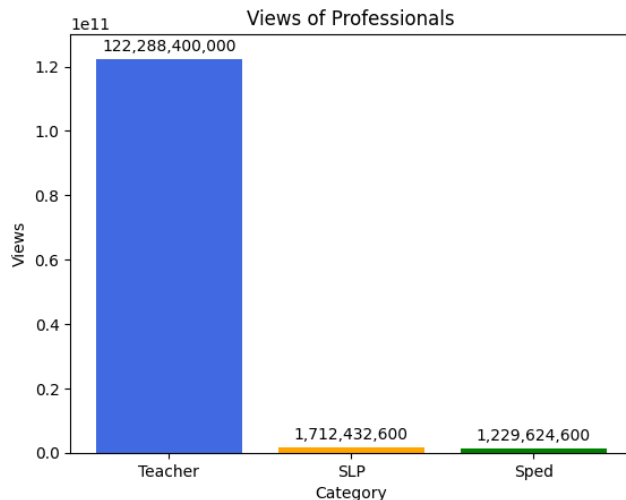


Figure 4: Glimpses of Engagement

According to the coding analysis, SPED instructors regularly discussed professional development topics. They did however exhibit a lesser tendency to share information regarding the materials needed to promote customized learning. This disparity might indicate a focus on developing their teaching abilities and remaining current with the best techniques in the industry, as well as an opportunity for growth in terms of providing practical tools for tailored education and student assistance (see Figure 3).

6 DISCUSSION

Within the educational system, general education instructors often receive the greatest attention and effort. They serve a wide spectrum of students, resulting in substantial "traffic" or interaction within classes. GE teachers on TikTok (using hashtags such as #teachertiktok, #teachersoftiktok, #teachertok, #teacherlife, #teacherproblems) received significant media attention that celebrated the innovative ways in which teachers were making their jobs work despite challenges providing the public with insights into the previously closed-off world of the classroom [16] (See Table 1). If general education is getting the most attention, then those specialists who serve unique populations or low-incidence characteristics continue to be marginalized through limited social media visibility. The predominance of general education teachers on TikTok may imply that they have a large audience and are well-liked. The preponderance of anecdotal and hilarious content, on the other hand, shows that their contributions may be less educationally effective when compared to other professionals. This issue has the potential to have an influence on the community by emphasizing entertainment above useful and instructional information. While comedy

can captivate viewers, it can also distract from important educational conversations and concepts (see figure ??). Despite receiving the least attention on TikTok, SPED professionals and SLPs make a significant impact with their content. SPED experts concentrate on professional development, sharing critical knowledge with aspiring special education teachers, and advocating for inclusive education. SLPs, on the other hand, provide vital treatments and caregiver education at no cost, removing financial hurdles that could otherwise prohibit people from accessing speech therapy (see figure 2 & figure 3). According to [1], the incorporation of information and communication technology (ICT) enhances the independence of students with learning disabilities and gives them adequate abilities that allow them to complete their studies and transition to a typical employment setting. Despite its limited reach, its influence is tremendous, making a difference in the lives of individuals they, directly and indirectly, touch with instructive and supporting material.

7 CONCLUSION

In conclusion, TikTok has proven to be an effective and user-friendly platform for educators of students with disabilities. While general education teacher TikToks may have a wider appeal and hence draw more viewers, it is critical to acknowledge the importance and effect of material made by SPED teachers and SLPs. They provide focused assistance to their audience with educational postings on professional growth, process insights, and caregiver education. TikTok is an effective tool for disseminating information and breaking down obstacles in the field of special education. Using this platform allows instructors to develop a more inclusive and knowledgeable community, which benefits students with disabilities and their families in the long run.

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Table 1: Hashtags and Views

Teacher Names/ Hashtag	Like/views	Speech-language Pathologists Name/Hashtags	Likes/Views	Special Education Teachers Name/Hashtags	Likes/views
#teacher	67.0B	#speechtherapy	1.2B	#specialeducation	661.5M
#teachersoftiktok	53.2B	#slpsoftiktok	302.1M	#specialeducationteacher	366.4M
#teachertips	982M	#speechlanguagepathologist	117.9M	#spedteacher	141.7M
#classroommanagement	614.8M	#languagedevelopment	70.3M	#specialeducationclassroom	39.1M
#teachingkids	192.8M	#speechdisorders	16.1M	#specialeducationclassroom	11.1M
#teacherstruggles	174.0M	Vanashspeechtherapy	3.8M	#spedlife	8.2M
#teachingbelike	100.0M	helpmegrowspeech	1.8M	msgracebiggg	867.6K
teachingwithmsd	15.0M	Courtney.speech	200.5K	burtonsa19	350.3K
missdoyle1	6.5M	#schoolspeechtherapy	158.8K	mrsspedteacher	316.5K
yourscienceteacher	3.3M	boymomma180	73.3k	#specialeducationstudentsmatter	90.2K

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