



## Analyze the impact of curriculum development on ten-finger typing learning in office administration vocational high school

Anis Susanti<sup>1</sup>, Aulia Prima Kharismaputra<sup>2</sup>, Mar'atus Sholikhah<sup>3</sup>

<sup>1,2</sup>Universitas Negeri Semarang, Semarang, Indonesia

<sup>3</sup>Politeknik Balekambang, Jepara, Indonesia

[anissusanti@mail.unnes.ac.id](mailto:anissusanti@mail.unnes.ac.id)<sup>1</sup>, [aulia@mail.unnes.ac.id](mailto:aulia@mail.unnes.ac.id)<sup>2</sup>, [maratussholikhah.polibang@gmail.com](mailto:maratussholikhah.polibang@gmail.com)<sup>3</sup>

### ABSTRACT

Dynamic curriculum changes challenge Indonesia's Vocational High School or Sekolah Menengah Kejuruan (SMK) education. Curriculum changes in vocational schools also impact improving the learning process that must be implemented in the subject areas of expertise. One of the skill competencies that requires the ability to type as a skill that students must master is Office Administration, which is currently known as Office Management and Business Services. This research aims to analyze the impact of the transformation of the Office Administration Vocational School curriculum on typing learning. This research was conducted by applying a mixed-method research design. Qualitative data in this research was collected from a literature study of documents related to curriculum changes and previous research articles. Quantitative data was obtained from vocational school students using a questionnaire. The object of this research is typing learning, which is affected by curriculum changes. The results showed that curriculum development starting from KTSP, 2013 Curriculum, and Merdeka Curriculum had an impact on reducing the allocation of learning time for fast typing exercises, changing the name of competencies, and adjusting learning materials.

### ARTICLE INFO

#### Article History:

Received: 24 Feb 2024

Revised: 5 May 2024

Accepted: 7 May 2024

Available online: 17 May 2024

Publish: 22 May 2024

#### Keyword:

curriculum development; ten-finger typing learning; vocational high school

#### Open access

Inovasi Kurikulum is a peer-reviewed open-access journal.

### ABSTRAK

Pendidikan Sekolah Menengah Kejuruan (SMK) di Indonesia saat ini dihadapkan pada tantangan perubahan kurikulum yang dinamis. Perubahan atau transformasi kurikulum di SMK juga berdampak pada perbaikan proses pembelajaran yang harus dilaksanakan dan juga berdampak pada perubahan bidang keahlian. Salah satu kompetensi keterampilan yang memerlukan kemampuan mengetik sebagai keterampilan yang harus dikuasai siswa adalah Administrasi Perkantoran yang saat ini dikenal dengan sebutan Manajemen Perkantoran dan Pelayanan Bisnis. Penelitian ini bertujuan untuk menganalisis dampak transformasi kurikulum SMK Administrasi Perkantoran terhadap pembelajaran mengetik. Penelitian ini dilakukan dengan menerapkan desain penelitian metode campuran. Data kualitatif dalam penelitian ini dikumpulkan melalui studi literatur dokumen-dokumen yang berkaitan dengan perubahan kurikulum dan artikel penelitian sebelumnya. Data kuantitatif diperoleh dari siswa SMK dengan menggunakan kuesioner. Objek penelitian ini adalah pembelajaran mengetik yang terkena dampak perubahan kurikulum. Hasil penelitian menunjukkan bahwa pengembangan kurikulum mulai dari KTSP, Kurikulum 2013 dan Kurikulum Merdeka berdampak pada berkurangnya alokasi waktu pembelajaran untuk latihan mengetik cepat, perubahan nama kompetensi serta terdapat penyesuaian materi pembelajaran.

**Kata Kunci:** pembelajaran mengetik dengan sepuluh jari; pengembangan kurikulum; sekolah menengah kejuruan

### How to cite (APA 7)

Susanti, A., Kharismaputra, A.P., & Sholikhah, M. (2024). Analyze the impact of curriculum development on ten-finger typing learning in office administration vocational high school. *Inovasi Kurikulum*, 21(2), 969-982.

### Peer review

This article has been peer-reviewed through the journal's standard double-blind peer review, where both the reviewers and authors are anonymised during review.



### Copyright

2024, Anis Susanti, Aulia Prima Kharismaputra, Mar'atus Sholikhah. This an open-access is article distributed under the terms of the Creative Commons Attribution-ShareAlike 4.0 International (CC BY-SA 4.0) <https://creativecommons.org/licenses/by-sa/4.0/>, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author, and source are credited. \*Corresponding author:

[anissusanti@mail.unnes.ac.id](mailto:anissusanti@mail.unnes.ac.id)

## INTRODUCTION

Vocational High School or Sekolah Menengah Kejuruan (SMK) education in Indonesia currently faces the challenge of dynamic curriculum changes. One of the government's efforts is to renew the curriculum to ensure the quality of education in Indonesia does not fall behind other countries (Windayanti et al., 2023). A concrete manifestation of this effort is the implementation of the Kurikulum Merdeka (Liana et al., 2023). One educational institution undergoing this curriculum transformation is Vocational High School or Sekolah Menengah Kejuruan (SMK). SMK has a distinct advantage over other educational levels, namely the SMK Pusat Keunggulan or Center of Excellence (SMK COE) program, initiated in 2021. One SMK that received the SMK COE grant is SMK Negeri 1 Bawang in Banjarnegara. This program is part of Ditjen Vokasi's work plan, which aligns with the implementation of Kurikulum Merdeka. The curriculum change or transformation in SMK also impacts the improvement and adaptation of the curriculum to be applied, including changes to vocational subject areas. One key consideration in curriculum development is the needs of stakeholders in the globalization era (Fajri, 2019).

Curriculum development in SMK also heavily relies on collaboration between schools and industry. Various forms of industry partnerships have been implemented, including activities such as praktik kerja industri (prakerin), curriculum synchronization with industry partners for link and match, training, internships, and job fairs (Setiawaty & Fahmi, 2022). The collaboration between SMK and industries also aims to enhance students' mastery of knowledge and technology developments in the industrial sector (Smith et al., 2006). However, these partnerships have yet to yield optimal benefits for both parties, failing to significantly improve graduates' skills and competencies to meet industry demands. Curriculum reform is expected to address industry partners' needs, as a curriculum that fails to provide relevant skills and competencies will ultimately produce a workforce incapable of advancing to higher levels (Poedjiastutie et al., 2018).

The government continues to develop the curriculum to ensure that graduates of SMK meet qualifications, emphasizing hard skills and soft skills. The curriculum development in SMK must integrate instruction and construction, ensuring that the primary learning approach aligns with school-based education and industrial training while focusing on desired learning outcomes (Rochanah, 2021). In addition to industry-specific technical competencies, SMK students must also possess soft skills, including: 1) Commitment and responsibility in work; 2) Problem-solving ability; 3) Planning and organizational skills; 4) Teamwork and collaboration; and 5) Initiative, self-confidence, perseverance, and creativity (Setiawaty & Fahmi, 2022).

Complex skill refers to specific, observable technical competencies that serve as primary requirements in the professional world (Walenta et al., 2023). The importance of hard skills for SMK students is demonstrated through Microsoft Excel training (Petro & Swatan, 2019) and practical website development courses (Putri et al., 2019). Students' hard skills should be validated through competency certification in their respective fields (Sumantri et al., 2019). In business and management, typing proficiency has become an essential complex skill due to technological advancements, as it creates broader career opportunities across nearly all industries (Poole & Preciado, 2016). Developing typing skills enables students to handle various computer-based tasks more efficiently. Touch typing - the ability to type using all fingers without looking at the keyboard - allows employees to produce and edit text with significantly greater speed and accuracy. This translates to improved work experience and increased time availability for other tasks for professionals. Such competencies should be systematically cultivated during school training before students graduate and become fully industry-ready.

Under the current curriculum implementation, Kurikulum Merdeka, students must complete various assignments and projects that demand typing skills, indicating the importance of typing competency (Barkaoui, 2014). However, curriculum changes have also affected instructional time allocation for specific

subjects. In Kurikulum 2013, instructional hours (Jam Pelajaran/JP) were structured weekly. Schools arranged fixed weekly time allocations each semester, allowing students to receive grades for all subjects every semester. In contrast, Kurikulum Merdeka organizes JP annually, granting schools flexible scheduling to meet the prescribed JP requirements. Kurikulum 2013 in SMK reduced instructional hours for adaptive and normative subjects while increasing time for productive subjects (Hakim, 2017). However, productive subjects typically require more time than others, yet Kurikulum Merdeka further reduces their allocation. This ineffective time allocation stems from limited hours and the many subjects students must take (Dini et al., 2023). The reduced JP aims to accommodate all subjects for Grade X students, including the Proyek Penguatan Profil Pelajar Pancasila (P5), which affects subject time allocation. Office Administration (currently termed Manajemen Perkantoran dan Pelayanan Bisnis), a vocational competency requiring typing proficiency, exemplifies this challenge. Given the urgency of typing instruction for students, this study aims to analyze the impact of curriculum transformations - from KTSP, Kurikulum 2013, to Kurikulum Merdeka - on typing instruction in SMK's Office Administration program.

## LITERATURE REVIEW

### SMK Office Administration Curriculum

The curriculum for SMK Administrasi Perkantoran is designed to equip students with practical skills required for office environments, based on industry standards and needs. The previously implemented Kurikulum Tingkat Satuan Pendidikan (KTSP) was competency-based, emphasizing contextual learning approaches. The Administrasi Perkantoran curriculum in Indonesia has undergone multiple transformations in response to evolving industry demands, technological advancements, and educational approaches. All stakeholders must be involved in planning Kurikulum Merdeka according to students' potential and needs (Ramadina, 2024). Initially, the curriculum focused on basic administrative skills such as typing, filing, and fundamental business communication. Subjects primarily introduced administrative concepts and essential office skills. With technological developments, the curriculum began integrating office software applications and modern communication technologies. Kurikulum 2013 introduced the 5M framework: Mengamati (Observing), Menanya (Questioning), Mengumpulkan Informasi (Gathering Information), Menalar (Reasoning), and Mengkomunikasikan (Communicating) (Putri & Puspasari, 2020). There has been increased emphasis on developing practical communication skills in Indonesian and English, reflecting the importance of communication in an increasingly globalized business environment. The shift towards competency-based approaches aims to produce work-ready graduates with immediately applicable skills.

With the advent of the digital era, the curriculum has progressively adapted to emphasize digital technology integration. Kurikulum Merdeka enables schools to tailor curricula according to students' learning needs while providing flexible opportunities to explore their interests and potential (Rizki & Trisnawati, 2023). More schools are adopting project-based learning, where students are assigned projects that simulate real-world office environments to hone their practical skills, including mastery of e-commerce, database management, and cloud-based office applications. Schools also establish industry partnerships to ensure their curriculum aligns with workforce demands, including internship programs and fieldwork opportunities. In addition to technical skills, emphasis is also placed on developing soft skills such as leadership, teamwork, and creativity. This is based on the development of Kurikulum Merdeka, which guides students in achieving skills needed for personal, social, and professional life. Kurikulum Merdeka focuses on improving the quality of learning by introducing more active, interactive, and integrated cross-disciplinary approaches (Risna, 2023). This curriculum promotes meaningful, contextual, and real-world relevant learning.

One of the learning components in SMK's Kurikulum Merdeka is touch typing (10-finger typing). Typing has become a key skill in modern office administration. In the context of Administrasi Perkantoran, typing involves using computer keyboards or other devices to input text into documents, letters, emails, reports, and various other forms of written communication. Modern office administration frequently requires word processing software such as Microsoft Word, Google Docs, or similar applications. Mastery of these software applications, including basic functions like text formatting, image insertion, and layout arrangement, is essential for students to acquire.

## **Ten-Finger Typing Instruction**

The instruction of ten-finger typing constitutes an essential component of the Administrasi Perkantoran curriculum in Indonesia, as this skill is a fundamental competency in modern office environments. Ten-finger typing enables significantly higher typing speeds compared to two-finger or single-finger methods. When typing a word, individuals must first encode the initial letter, locate the corresponding key, select the appropriate finger, press the keyboard key, and repeat this encoding process for subsequent letters. This systematic approach enhances typing accuracy through optimal workload distribution across all fingers of both hands. Furthermore, ten-finger typing techniques reduce hand and finger strain by promoting more natural and efficient movement patterns. The method's ergonomic advantages mitigate fatigue during prolonged typing tasks while maintaining productivity standards expected in professional settings.

Ten-finger typing proficiency is recognized as a hallmark of professionalism in office environments, as it enables individuals to complete written tasks with greater speed and efficiency. Skilled typists can achieve 100 words per minute (100 WPM) speeds, with some reaching up to 150 WPM (Logan, 2018). The learning process for rapid typing requires the development of three key associations: (1) Words and letters, (2) Letters and keys, and (3) Keys and fingers (Yamaguchi & Logan, 2014). For students in Administrasi Perkantoran, mastering ten-finger typing (keyboarding) is essential for academic and professional success. This fundamental computer operation skill significantly enhances task completion efficiency (Asare et al., 2020). Ten-finger typing has become a universal competency required across all sectors, including private organizations, government institutions, and other organizations.

The learning process starts with an introduction to proper finger positioning on the keyboard and correct typing techniques. Students engage in repetitive exercises to develop muscle memory for finger placement while progressively enhancing speed and accuracy. Many educational institutions employ specialized typing tutorial software, which provides real-time performance feedback and progress tracking. Beyond general practice drills, the curriculum incorporates targeted exercises focusing on specific character mastery, including numerical digits, punctuation marks, and special symbols.

Several applications have been specifically designed to facilitate ten-finger typing instruction and training. These keyboarding applications offer distinct advantages: they simplify learning ten-finger typing, thereby supporting efficient completion of typing tasks, while significantly reducing time requirements for creating reports, emails, and presentation materials (Agustiani, 2022). Notable examples of popular applications include:

### **1. Typing Master**

Typing Master is one of the prominent typing instruction applications available. The software provides comprehensive exercises, speed tests, and skill-building games to enhance users' typing proficiency.

### **2. KeyBlaze**

KeyBlaze is a typing tutorial application that offers structured exercises and proficiency tests designed to enhance typing speed and accuracy. The software incorporates interactive guidance modules to introduce users to proper ten-finger typing techniques systematically.



### 3. Ratatype

Ratatype is an online typing instruction platform offering interactive practice exercises, speed tests, and progress analytics. The system enables users to monitor their skill development over time and provides certification upon completion of designated proficiency levels.

### 4. TypingClub

TypingClub represents a comprehensive typing instruction application offering free courses for all proficiency levels, from beginner to advanced. The platform features an intuitive user interface and progress-tracking functionality that enables users to monitor their skill development effectively.

### 5. Keybr

Keybr is an online typing tutorial application that employs an adaptive learning approach to enhance users' typing proficiency. The system dynamically adjusts practice exercises based on individual performance metrics to optimize learning outcomes.

### 6. Typing.com

Typing.com is a comprehensive typing instruction platform that offers interactive practice modules, speed assessments, and gamified learning activities designed to enhance engagement and skill acquisition efficiency.

Among the six applications, Typing Master is the most used in SMK for 10-finger typing instruction. The Typing Master application has games to enhance typing speed in each learning session (Marwan & Wardani, 2023). Typing Master offers four learning categories for students: Touch Typing Course, Launch Satellite, Speed Building Course, Number, Special Mark, and Numeric Keypad Course. It also provides options for speed metrics, namely Character Per Minute (CPM) and Word Per Minute (WPM). The use of Typing Master can improve an individual's typing skills in terms of both speed and accuracy (Armianti & Rahmidani, 2019). Its utilization as a learning and practice tool significantly aids in developing the typing proficiency required for secretaries or administrative staff in business or office environments, such as perhotelan, travel, Perseroan Terbatas, Firma, and government institutions like pendidikan (Suripto et al., 2022). Typing applications are crucial as instructional media, enhancing student competencies, including 10-finger typing (Sholikah et al., 2023).

Ten-finger typing skills offer several key advantages in modern office environments. By efficiently using all fingers, individuals can significantly increase their typing speed compared to one—or two-finger typing techniques. This enables them to complete typing tasks more quickly, enhancing overall productivity. Additionally, ten-finger typing improves typing accuracy. With a more balanced workload distribution across all fingers, typists can reduce errors, resulting in more precise and higher-quality documents.

Typing proficiency comprises two key components, typing speed and typing accuracy. Typing speed is typically measured on two scales, KPM (Karakter Per Menit) and WPM (Words Per Minute). WPM can be derived by dividing KPM by five (Sulastri, 2014), while accuracy is measured as a percentage (%). Expert typists can easily achieve 50 WPM or even 100 WPM (Baker & Redfern, 2007). The 10-finger typing technique enables a more balanced workload distribution across all fingers, reducing strain and fatigue in the hands and fingers. This enhances typing comfort, particularly during prolonged work sessions. By mastering 10-finger typing, individuals can type without directly looking at the keyboard, facilitating multitasking, such as reading documents or speaking on the phone while typing. Proficiency in 10-finger typing is regarded as a marker of professionalism in office environments. The ability to type quickly and accurately creates a positive impression on supervisors, colleagues, and clients, elevating one's professional image. Efficient use of all fingers allows individuals to complete more tasks in less time, conserving time and energy while handling larger workloads more effectively. Furthermore, 10-finger

typing skills enhance adaptability to various devices, including computer keyboards, laptops, and mobile devices, enabling efficient performance across diverse work environments.

## METHODS

This study employed a mixed-methods research design, involving the collection, analysis, and interpretation of both numerical (quantitative) and non-numerical (qualitative) data in various combinations. The qualitative data were collected through a literature review of documents related to curriculum development, including struktur kurikulum, silabus, and previous research articles concerning typing or keyboarding subjects in the Kompetensi Keahlian Administrasi Perkantoran SMK program. Quantitative data were obtained from SMK students through survey methods using questionnaires. The research focused on typing instruction affected by curriculum changes at three (3) Sekolah Menengah Kejuruan with Kompetensi Keahlian Manajemen Perkantoran dan Layanan Bisnis (MPLB) programs.

Quantitative data were collected through questionnaires distributed to 386 students who had completed typing instruction in the Informatika dan Teknologi Kantor subject using survey methodology. Meanwhile, qualitative data were obtained through document analysis and review of previous research articles concerning curriculum development in Indonesia, spanning from KTSP, Kurikulum 2013, to Kurikulum Merdeka. The research focused on how typing instruction was affected by curriculum changes. The questionnaires were employed to examine typing instruction following the implementation of the latest curriculum in 2023, based on student experiences analyzed using percentage calculation techniques.

## RESULTS AND DISCUSSION

Curriculum continually evolves to meet societal needs and adapt to technological advancements (Hudaidah & Ananda, 2021). Since Indonesia's independence, the national education curriculum has undergone at least 11 changes up to the current implementation of Kurikulum Merdeka. These curriculum transformations occur in response to developments in politics, social affairs, culture, economics, and IPTEK (science and technology) within the nation's context. Fundamentally, all national curriculum reforms in Indonesia remain grounded in Pancasila and UUD 1945, differing primarily in their educational objectives and implementation approaches. The variations in typing instruction across KTSP (Kurikulum Tingkat Satuan Pendidikan), Kurikulum 2013, and Kurikulum Merdeka predominantly lie in their pedagogical approaches, content emphasis, and specific skill focus areas. Under KTSP, schools were granted autonomy in curriculum design and instructional material selection. This decentralized approach allowed educational institutions to tailor typing instruction according to local needs and available resources while maintaining national education standards.

The typing instruction approach initially focused on a specific subject: manual typing. The KTSP curriculum emphasized developing practical skills relevant to local employment opportunities. Additionally, students learned typing through the Keterampilan Komputer dan Pengelolaan Informasi (KKPI) subject. The Kurikulum 2013 adopted a competency-based approach, where students were expected to achieve specific typing skill competencies. This curriculum established clearer competency standards for typing proficiency and emphasized technology integration in instruction, including using word processing software and other digital tools to support typing education. Kurikulum Merdeka offers greater flexibility in curriculum design and industry-aligned instruction through synchronization with Industri dan Dunia Kerja (IDUKA) and the implementation of teaching factory concepts. Research findings reveal changes in the time allocation for 10-finger typing instruction in SMK Administrasi Perkantoran (currently termed Manajemen Perkantoran dan Layanan Bisnis/MPLB), as presented in **Table 1**.

**Table 1.** Time Allocation for Typing Learning at the Office Administration Vocational School

Tahun	Applied Curriculum	Subjects	Time Allocation (Minutes)
2006-2013	Kurikulum 2006 (KTSP)	KKPI	2.700
		Mengetik Manual	2.700
2014-2021	Kurikulum 2013	Simulasi Digital	1.350
		Otomatisasi Perkantoran	1.575
2022-saat ini	Kurikulum Merdeka	Informatika	270
		Teknologi Kantor	540

Source: Research 2023

Quantitative curriculum changes have reduced the instructional time allocation for typing within productive subjects. Under the KTSP curriculum, typing was primarily taught in the Keterampilan Komputer dan Pengelolaan Informasi (KKPI) subject, with manual typing focusing on mastering basic 10-finger touch typing techniques. The substantial time allocation demonstrated optimal results in students' typing proficiency. This is evidenced by research findings during the Kurikulum 2013 implementation, where students achieved typing speeds of 140-160 KPM with 90-95% accuracy through continuous practice methods (Marwan & Wardani, 2023; Susanti & Pramusinto, 2015).

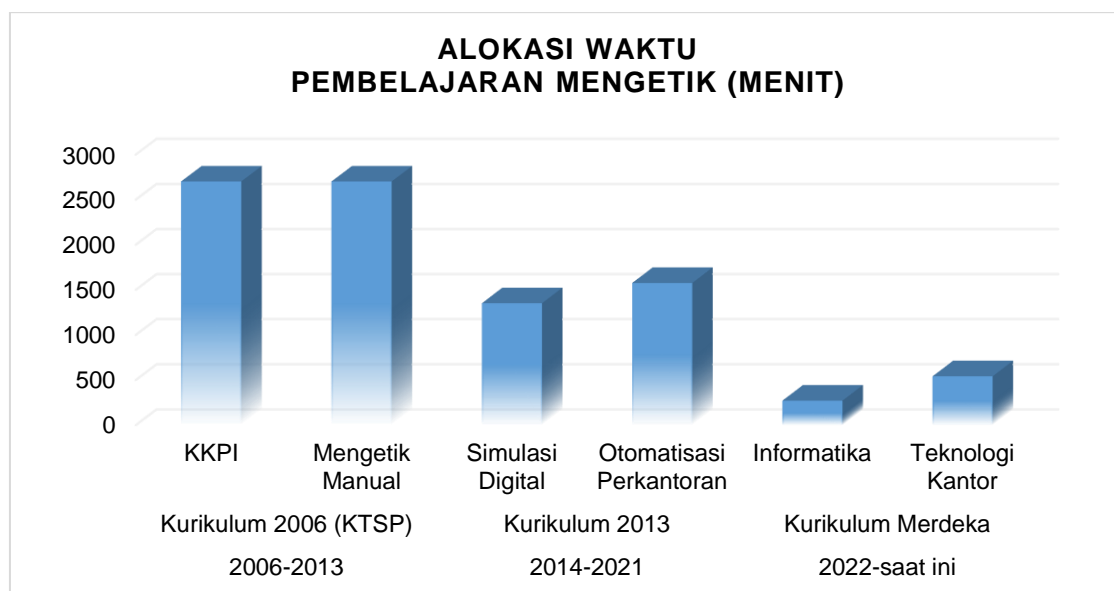
A significant 50% reduction in time allocation occurred compared to previous curriculum implementations. Notably, under Kurikulum Merdeka, typing instruction receives minimal time allocation. Based on interviews with Teknologi Kantor subject teachers, typing instruction is now conducted independently using Typing Master software, with students practicing freely. Current practice allows students to conduct typing exercises during each class meeting throughout the semester, and 1 Jam Pelajaran (1 class hour) is allocated before commencing new lesson materials. This self-directed approach represents a substantial departure from structured typing instruction in previous curricula.

Typing instruction for Sekolah Menengah Kejuruan (SMK) students constitutes a vital curriculum component, preparing them for modern workplace demands. The primary objective of this subject is to enable students to master ten-finger typing techniques with speed, accuracy, and efficiency. Through structured, sustained practice exercises, students must enhance their typing velocity and precision. This skill development aligns with vocational education's emphasis on equipping learners with practical competencies essential for administrative and office technology professions.

In addition to typing proficiency, students are also trained to apply their skills in producing real-world office documents, including letters, reports, and emails. The instructional materials currently implemented cover the following aspects:

1. Basic computer keyboard structure and functions of each key
2. Correct finger positioning for ten-finger typing
3. Exercises for letters, numbers, punctuation marks, and word combinations
4. Use of ten-finger typing applications
5. Use of word processing software such as Microsoft Word or Google Docs for document typing and basic features, including paragraph formatting, text styling, and image insertion
6. Speed and accuracy tests, along with teacher feedback

The graph in Figure 1 illustrates the reduction in allocated time for learning and practicing 10-finger typing due to curriculum changes in the Office Administration vocational program.



**Figure 1.** The Impact of Curriculum Development on Time Allocation for Typing Learning in SMK Administrasi Perkantoran  
 Source: Research 2023

Based on the analysis of curriculum-related documents, including syllabi and learning outcomes, data were obtained regarding typing instruction and its time allocation measured in Jam Pelajaran (JP) (45 minutes per JP) within one academic year. To validate whether the reduced time allocation affects students' typing proficiency, questionnaires were distributed to 386 vocational students enrolled in the Manajemen Perkantoran dan Layanan Bisnis program across three SMK Negeri institutions in Central Java. The results revealed a significantly higher proportion of female students (97.7%) compared to males, with an average age of 17. Students reported Typing Master as the most frequently used application, typically installed on computers in school practice laboratories.

Some students also used typing websites such as [www.10fastfinger.com](http://www.10fastfinger.com), [www.typingtest.com](http://www.typingtest.com), [www.typingclub.com](http://www.typingclub.com), <https://monkeytype.com/>, and <https://ngetik.maya.id/>. The survey results showed that 38.9% of students used words per minute (WPM) as their typing speed measurement unit, 36.8% used keystrokes per minute (KPM), while the remaining 24.4% were unaware of their typing speed units. The survey results of students' typing speed in typing instruction that has begun transitioning to the implementation of Kurikulum Merdeka can be seen in **Table 2** below.

**Table 2.** Student Typing Speed Data

Typing Speed	Total	Percentage
151-200 WPM	9	2,3%
101-150 WPM	25	6,5%
51-100 WPM	100	25,9%
0-50 WPM	71	18,4%
Unknown	181	46,9%
<b>Total</b>	<b>386</b>	<b>100%</b>

Source: Research 2023

The typing speed data indicates that WPM (words per minute) is a more prevalent measurement unit. Most students' typing speeds remain below 100 WPM, with many unaware of their typing speed. As revealed by one student, the allocated time for typing instruction only covers letter-typing exercises without progressing to full-text typing practice, causing students to disregard their achieved speeds. Conversely,



students acknowledge the importance of mastering ten-finger typing skills as it demonstrates their competency as qualified human resources in Manajemen Perkantoran dan Layanan Bisnis. They perceive these skills as beneficial not only for the Kompetensi Keahlian Manajemen Perkantoran dan Layanan Bisnis (MPLB) but also for other competencies such as Akuntansi Keuangan dan Lembaga (AKL) and Pemrograman Perangkat Lunak dan Gim (PPLG).

The overall allocated Jam Pelajaran in each curriculum implementation should theoretically suffice for typing instruction and practice. However, 27.5% of students reported insufficient time to develop typing proficiency. Typing exercises are incorporated into the Dasar-dasar Manajemen Perkantoran dan Layanan Bisnis subject, scheduled twice weekly (totaling 2 Jam Pelajaran) for 10th graders. A critical limitation arises as practice occurs solely in school settings, with minimal independent practice on personal laptops or computers due to students' lack of home access to such devices. Despite mail handling being a core competency requiring letter-typing skills, observational data reveal that most students do not apply ten-finger typing during office practice simulations. Beyond typing speed, accuracy remains equally essential. The research findings on students' typing accuracy under Kurikulum Merdeka implementation in SMK are presented in **Table 3**.

**Table 3.** Student Typing Accuracy Data

Typing Accuracy	Total	Percentage
95%-100%	33	8,5%
90%-95%	65	16,8%
85%-90%	67	17,4%
80%-85%	76	19,7%
Unknown	145	37,6%
<b>Total</b>	<b>386</b>	<b>100%</b>

*Source: Research 2023*

The table reveals that students remain unaware of their typing accuracy due to insufficient practice completing full-text typing exercises. Students report that the limited time allocation prevents comprehensive text-typing practice, hindering their ability to achieve mastery-level proficiency (200 KPM with 99% accuracy). Further practice in character typing through Typing Master remains necessary in Informatika and Teknologi Kantor subjects. Curriculum updates significantly influence learning processes as instructional approaches become increasingly dynamic (Windayanti et al., 2023). A well-designed curriculum facilitates students' acquisition of essential knowledge and skills for professional readiness (Rap et al., 2022; Slemrod et al., 2018) while contributing to societal advancement (Mishra & Mishra, 2020).

## Discussion

### Ten-Finger Typing Instruction During KTSP Implementation

The Kurikulum Tingkat Satuan Pendidikan (KTSP), hereafter referred to as KTSP, represents a curriculum developed based on educational units, school/regional potential and characteristics, local socio-cultural context, and student profiles. Schools or committees develop the KTSP and syllabi according to the national curriculum framework and graduate competency standards (Abidin et al., 2023). The KTSP content includes various subjects whose scope and depth constitute the student learning load within the educational unit.

Results from the literature review of documents concerning the 2006 Kurikulum Tingkat Satuan Pendidikan (KTSP) implemented in SMK Administrasi Perkantoran\*\* indicate a curriculum structure that included typing instruction through two subjects: Manual Typing using typewriters and Keterampilan Komputer dan Pengelolaan Informasi (KKPI) using Typing Master software. Within the KKPI subject, typing instruction

was incorporated into the 10-finger typing competency standard, and five sessions were allocated (10 JP @ 45 minutes). Additionally, the local curriculum component Administrasi Perkantoran dedicated one semester (equivalent to 60 JP @ 45 minutes) to 10-finger typing practice, with each full session consisting of 2 Jam Pelajaran conducted exclusively on manual typewriters. Fast typing has become increasingly important for enhancing productivity, as modern professionals require efficient computer operation skills (Povlsen, 2012). Computer literacy and typing proficiency are essential for students' current written communication needs. These typing skills enable students to use word processing applications effectively, particularly for computer-based subjects (Poole & Preciado, 2016).

### **Ten-Finger Typing Instruction During the Implementation of Kurikulum 2013**

The expected graduate competencies under this curriculum emphasized a balance between soft and hard skills, encompassing aspects of competency, attitude, skills, and knowledge (Hadiansyah et al., 2019). Through Kurikulum 2013, the government aimed to enable students to expand their knowledge while applying ethical values and noble character in their daily lives (Manurung, 2019). Kurikulum 2013 represents a character-based curriculum designed to enhance the quality of educational processes and outcomes, focusing on developing students' moral character and ethics in alignment with the Standar Kompetensi Lulusan (SKL) at each educational level (Abidin et al., 2023).

In the structure of Kurikulum 2013 for the Otomatisasi Tata Kelola Perkantoran (OTKP) competency, ten-finger typing (keyboarding) instruction is incorporated into the Otomatisasi Perkantoran and Simulasi Digital subjects for 10th-grade students. Within the Otomatisasi Perkantoran subject, typing instruction appears in the fundamental knowledge competency (explaining techniques for fast and accurate keyboarding) and the basic skills competency (demonstrating fast and accurate keyboarding techniques). Students are expected to achieve typing proficiency using all ten fingers at speeds of 50-200 Entakan Per Menit (EPM) with 100% accuracy. In the Simulasi Digital subject, typing instruction is a supplementary skill that students must master, with practice sessions allocated 1 JP (@45 minutes) using Typing Master software. This foundational skill serves as a prerequisite for subsequent core competencies.

Documentation of students' typing speed tests reveals that typing competency remains suboptimal, as evidenced by the average manual typing speed of 139.16 EPM, below the minimum threshold of 145 EPM (Febriana & Suryani, 2015). The revised Kurikulum 2013 introduced the Teknologi Perkantoran dan Simulasi Komunikasi Digital subject (2 JP @45 minutes), which includes 10-finger typing as a core competency with target benchmarks of 200 EPM speed and 99% accuracy. Previous research has demonstrated the positive impact of computer-based typing skills on writing quality for eighth-grade students (Tate et al., 2019), highlighting the continued relevance of typing proficiency in educational contexts.

### **Ten-Finger Typing Instruction During the Implementation of Kurikulum Merdeka**

Kurikulum Merdeka represents an educational framework emphasizing student autonomy in acquiring knowledge through formal and non-formal learning channels. This curriculum does not restrict learning to school environments, allowing for flexible educational approaches beyond traditional classroom settings (Marisa, 2021). Implementation occurs through three distinct phases: independent learning (belajar mandiri), adaptive independence (Mandiri berubah), and collaborative independence (Mandiri berbagi) (Ayundasari, 2022).

At first glance, based on established regulations, Kurikulum Merdeka demonstrates several advantages over Kurikulum 2013. It provides greater flexibility for teachers and students to exercise creativity and determine learning priorities (essential content). Educational institutions and teachers are empowered to

develop curricula and supplementary materials tailored to their needs and school contexts. This approach enables schools to design curricula that align with local environmental potentials, fostering better graduate employability (link and match). Administratively, the implementation remains non-compulsory, allowing educational units to voluntarily adopt the curriculum based on their institutional capacity and readiness. This optional adoption mechanism respects varying levels of preparedness across different schools while maintaining the curriculum's core objectives.

In the 2023 Kurikulum Merdeka structure, ten-finger typing instruction is incorporated into the Informatika dan Teknologi Kantor subject during Phase F (Grade XI), where students must master rapid typing techniques (keyboarding). The curriculum allocates explicitly 12 Jam Pelajaran (@45 minutes each, totaling 540 minutes) for keyboarding instruction. However, students consistently report this allocated time as insufficient, creating a significant barrier to developing proper ten-finger typing proficiency. This perceived shortage of dedicated practice time remains a persistent challenge in achieving the curriculum's intended keyboarding competencies.

## CONCLUSION

Based on the analysis, curriculum development in the Sekolah Menengah Kejuruan (SMK) Administrasi Perkantoran has led to changes in the vocational competency's name and the subject matter delivered. This study focuses on typing instruction. Under the KTSP curriculum, the vocational competency was still termed Administrasi Perkantoran, which later changed to Otomatisasi Tata Kelola Perkantoran (OTKP) with the implementation of the Kurikulum 2013, and subsequently evolved into the Manajemen Perkantoran dan Layanan Bisnis (MPLB) vocational program, specializing in Manajemen Perkantoran, under the Kurikulum Merdeka. The research reveals that curriculum transformations have reduced the time allocated for typing instruction with each change. Manual typing using typewriters was entirely discontinued as a subject after the adoption of the Kurikulum 2013. Current typing instruction utilizes computers or laptops with speed-typing applications such as Typing Master, resulting in significantly less dedicated time than when typing was a full-semester subject. Based on the findings, the researcher recommends that curriculum developers in schools offering the Manajemen Perkantoran dan Layanan Bisnis competency continue allocating time for typing practice within subjects like Informatika and Teknologi Perkantoran. Additionally, integrating typing exercises into computer-based practical lessons would give students more opportunities to practice 10-finger keyboard typing. This approach would enhance their efficiency in producing office documents and completing administrative tasks during mata pelajaran produktif, an essential post-graduation skill.

## AUTHOR'S NOTE

The authors declare no conflicts of interest regarding the publication of this article. The authors affirm that all data and content presented in this article are plagiarism-free.

## REFERENCES

- Abidin, D., Retnaningrum, E., Parinussa, J. D., Kuning, D. S., Manoppo, Y., & Kartika, I. M. (2023). Curriculum development in Indonesia from a historical perspective. *Journal of Education Research*, 4(2), 443-451.
- Agustiani, S. (2022). Peningkatan hasil belajar menerapkan pengetikan (keyboarding) pada mata pelajaran Teknologi Perkantoran melalui strategi peer lessons siswa kelas X OTKP 2 SMK Negeri 1 Ponorogo. *Jurnal Dimensi Pendidikan dan Pembelajaran*, 11(1), 1-18.

- Armianti, A., & Rahmidani, R. (2019). Peningkatan Kecepatan Mengetik dengan Teknik Blind System melalui Pemanfaatan Program Typing Master. *Dikemas: Jurnal Pengabdian Kepada Masyarakat*, 3(2), 75-82.
- Asare, S., Owusu-mintah, C., & Esther, A. (2020). Improving the keyboarding skills of basic school learners using the colored keyboard: A case of a Ghanaian basic. *International Journal for Research and Development in Technology*, 13(5), 345-358.
- Ayundasari, L. (2022). Implementasi pendekatan multidimensional dalam pembelajaran Sejarah kurikulum merdeka. *Sejarah dan Budaya: Jurnal Sejarah, Budaya, dan Pengajarannya*, 16(1), 225-234.
- Baker, N. A., & Redfern, M. S. (2007). The association between computer typing style and typing speed. *Proceedings of the Human Factors and Ergonomics Society*, 2(1), 869-873.
- Barkaoui, K. (2014). Examining the impact of L2 proficiency and keyboarding skills on scores on TOEFL-iBT writing tasks. *Language Testing*, 31(2), 241-259.
- Dini, A. M., Fibrianto, A. S., Huda, A. T. F., Azzahra, A. S., Cempaka, L., Muna, N. N., Lestari, N., & Titis, T. (2023). Navigating the flow of challenges: Problematics of implementing kurikulum merdeka in sociological subject at SMAN 1 Tumpang-Malang. *Jurnal Sosiologi Pendidikan Humanis*, 8(1), 21-39.
- Fajri, K. N. (2019). Proses pengembangan kurikulum. *Islamika*, 1(2), 35-48.
- Hadiansyah, R. R., Pradana, R. Y., & Mustiningsih. (2019). Dinamika perubahan kurikulum di Indonesia. *Seminar Nasional-Jurusan Administrasi Pendidikan Fakultas Ilmu Pendidikan Universitas Negeri Malang*, 3(1), 259-264.
- Hakim, L. (2017). Analisis perbedaan antara kurikulum KTSP dan Kurikulum 2013. *Jurnal Ilmiah Didaktika*, 17(2), 280-292.
- Hudaidah, & Ananda, A. P. (2021). Perkembangan kurikulum pendidikan Indonesia dari masa ke masa. *Jurnal Pendidikan Sejarah dan Kajian Sejarah*, 3(2), 102-108.
- Liana, M., Fitriyah, D., Hindrasti, N. E. K., Nevrita, N., Siregar, E. F. S., & Izzati, N. (2023). Pemanfaatan fitur pelatihan mandiri untuk memahami kurikulum merdeka. *Jurnal Pendidikan dan Kebudayaan*, 8(2), 138-152.
- Logan, G. D. (2018). Automatic control: How experts act without thinking. *Psychological Review*, 125(4), 453-485.
- Manurung, I. dan L. (2019). Sejarah kurikulum di Indonesia. *Jurnal Ilmiah Wahana Pendidikan*, 5(2), 88-95.
- Marisa, M. (2021). Inovasi kurikulum "Merdeka Belajar" di era society 5.0. *Santhet: Jurnal Sejarah, Pendidikan, dan Humaniora*, 5(1), 66-78.
- Marwan, M., & Wardani, M. W. (2023). Peningkatan kemampuan mengetik siswa melalui penggunaan aplikasi Typing Master sebagai media pembelajaran. *Jurnal Ecogen*, 6(1), 143-155.
- Mishra, D., & Mishra, A. (2020). Sustainability inclusion in informatics curriculum development. *Sustainability (Switzerland)*, 12(14), 1-16.
- Petro, S., & Swatan, K. H. (2019). Pelatihan Microsoft Excel sebagai penunjang ketrampilan hard skill bagi siswa pada SMK YPSEI Palangka Raya. *Jurnal Abdimas BSI: Jurnal Pengabdian Kepada Masyarakat*, 2(2), 280-286.
- Poedjiastutie, D., Akhyar, F., Hidayati, D., & Nurul Gasmi, F. (2018). Does curriculum help students to develop their english competence? A case in Indonesia. *Arab World English Journal*, 9(2), 175-185.
- Poole, D. M., & Preciado, M. K. (2016). Touch typing instruction: Elementary teachers' beliefs and practices. *Computers and Education*, 102(1), 1-14.
- Povlsen, B. (2012). Is typing speed proportional to the severity of pain in keyboard workers with work-

- related upper limb disorder. *JRSM Short Reports*, 3(1), 1-4.
- Putri, Effendi, & Kusumawardana. (2019). Upaya peningkatan soft dan hard skill siswa SMK. *Jurnal Pemberdayaan Masyarakat Berkarakter*, 2(1), 1-10.
- Putri, W. M., & Puspasari, D. (2020). Pengembangan buku ajar pada mata pelajaran administrasi sarana dan prasarana semester genap kelas XII APK 1 di SMKN Mojoagung. *Jurnal Pendidikan Administrasi Perkantoran (JPAP)*, 8(3), 480-488.
- Ramadina, E. (2024). Kurikulum Merdeka planning in schools: Case study at SMA N 1 Kalidawir. *Inovasi Kurikulum*, 2(1), 529-544.
- Rap, S., Blonder, R., Sindiani-Bsoul, A., & Rosenfeld, S. (2022). Curriculum development for student agency on sustainability issues: An exploratory study. *Frontiers in Education*, 7, 1-17.
- Risna, R. (2023). Analyzing the efficacy of outcome-based education in Kurikulum Merdeka: A literature-based perspective. *Curricula: Journal of Curriculum Development*, 2(2), 155-166.
- Rizki, P. B. A., & Trisnawati, N. (2023). Pengembangan modul dasar-dasar manajemen perkantoran berbasis kurikulum merdeka di SMKN 4 Surabaya. *Edukatif: Jurnal Ilmu Pendidikan*, 5(4), 1710-1717.
- Rochanah, S. (2021). Pengembangan kurikulum Sekolah Menengah Kejuruan (SMK). *Jurnal Pendidikan dan Pembelajaran (PIJAR)*, 5(1), 53-63.
- Setiawaty, T., & Fahmi, I. (2022). Mengurangi kesenjangan keterampilan lulusan SMK: Bagaimana cara membangun jaringan kerjasama antara SMK dan industri dalam berbagi pengetahuan, keterampilan dan informasi. *Jurnal Spektro*, 5(2), 1-8.
- Sholikah, M., Mubais, A., Kurniawan, I., & Susanti, A. (2023). Can keyboarding skills improve student performance and engagement? *Journal of Office Administration: Education and Practice*, 3(3), 190-203.
- Slemrod, T., Wood, L., Hart, S., & Coleman, W. (2018). Science instruction for secondary students with emotional or behavioral disorders: A guide for curriculum development. *The Journal of Science Education for Students with Disabilities*, 21(1), 1-13.
- Smith, I., Brisard, E., & Menter, I. (2006). Models of partnership developments in initial teacher education in the four components of the United Kingdom: Recent trends and current challenges. *Journal of Education for Teaching*, 32(2), 147-164.
- Sulastri, T. (2014). Analisis mengetik cepat 10 jari menggunakan teknologi komputer berbasis aplikasi software typing master. *Jurnal LPKIA*, 4(2), 13-18.
- Sumantri, D., Subijanto, S., Siswantari, S., & Sudiyono, S. (2019). Pengembangan sekolah menengah kejuruan empat tahun bidang keahlian prioritas program Nawacita. *Jurnal Pendidikan dan Kebudayaan*, 4(2), 152-168.
- Suripto, S., Maryani, E., Sari, P. I., & Supriyanto, S. (2022). Pelatihan kompetensi mengetik cepat dengan penerapan Typing Master di SMK Negeri 9 Bandar Lampung. *Dharma: Jurnal Pengabdian Masyarakat*, 3(2), 1-10.
- Susanti, A., & Pramusinto, H. (2015). Peningkatan keterampilan mengetik 10 jari dengan metode pembelajaran drill melalui Typing Master dan Ms. Word berbantuan media Job Sheet pada kelas X program keahlian Administrasi Perkantoran 1 SMK Negeri 2 Semarang. *Economic Education Analysis Journal*, 4(3), 664-678.
- Tate, T. P., Warschauer, M., & Kim, Y. S. G. (2019). Learning to compose digitally: The effect of prior computer use and keyboard activity on NAEP writing. *Reading and Writing*, 32(8), 2059-2082.
- Walenta, A. S., Hendra, A., Nurqaidah, S., Wahyuningsih, D., Pattiasina, P. J., & Saputra, A. M. A. (2023). Analisis soft skill dan hard skill siswa dalam mendukung kebutuhan industri 4.0 di SMKN 2 Yogyakarta. *Journal on Education*, 6(1), 3484-3493.
- Windayanti, W., Afnanda, M., Agustina, R., Kase, E. B. S., Safar, M., & Mokodenseho, S. (2023).



Problematika guru dalam menerapkan kurikulum merdeka. *Journal on Education*, 6(1), 2056-2063.

Yamaguchi, M., & Logan, G. D. (2014). Pushing typists back on the learning curve: Revealing chunking in skilled typewriting. *Journal of Experimental Psychology: Human Perception and Performance*, 40(2), 592-612.