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"Suspending Classes Without Stopping Learning": An Initiative to Ensure Learning in Japan During the Pandemic

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Abstract

Purpose: During Japan's initial pandemic prevention and control period, the Ministry of Education, Culture, Sports, Science, and Technology of Japan (MEXT) issued several notifications to ensure students' continuous learning according to the "leave no one behind" philosophy. This study focused on the comprehensive measures comprising top-level arrangements to implement the "suspending classes without stopping learning" initiative.

Design/Approach/Methods: The study reviewed MEXT's guide on ensuring learning for Japanese primary and secondary school students during the pandemic.

Findings: The pandemic has accelerated the development of the information and communications technology educational environment and the implementation of the Global and Innovation Gateway for All (GIGA) schools initiative. These developments laid the foundation for the evolution of diverse pedagogical models and feasible methods for promoting equity. The home schooling experience during the pandemic provided a natural base for students to practice and foster survivability.

Originality/Value: This paper provides scholars with an understanding of the opportunities and challenges encountered in educational innovation in Japan. It provides insights into the future direction of

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pedagogical development, capability development, and effective educational arrangements for extraordinary circumstances to facilitate educational development from a broader perspective, particularly under the new normal.

Keywords

Continuous learning, educational informatization, GIGA School Program, Japan, MEXT, pandemic

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Introduction

Despite having a sophisticated and agile crisis response system due to frequent natural hazards, Japan was not spared from the pandemic, which resulted in temporary school closures. The education disruption caused by this unknown public health crisis has threatened the public's right to education at an unprecedented scale and rate (UNESCO, 2020). Although most schools in Japan reopened in early June 2020, students and teachers across the country still face temporary school closures or are prevented from physically attending school for various pandemic-related reasons.

The Ministry of Education, Culture, Sports, Science, and Technology of Japan (MEXT) is part of the executive branch of the Government of Japan and coordinates educational, cultural, sports, scientific, and technological affairs. MEXT implemented a series of measures based on the "leave no one behind " philosophy, which aims to ensure that all students are protected from infection and can engage in continuous and reasonable learning safely and healthily. These measures are collectively called the "suspending classes without stopping learning" initiative.

A more resilient teaching and learning configuration allows learning even under exceptional circumstances. However, a comprehensive examination of top-level arrangements to ensure continuous learning is lacking. Existing research had indicated that due to the pandemic's impact, Japan has developed an information and communications technology (ICT) education environment to avoid further delays in students' learning (Sato, 2020) and has proposed methods to provide students with equal learning opportunities (Sato & Saito, 2022). However, an integrated review of MEXT's top-level design to examine the "suspending classes without stopping learning" initiative and a discussion on the specific measures, opportunities, and challenges is lacking. Studies have found that school closures have increased mothers' anxiety about parenting (Takaku & Yokoyama, 2021). Despite this, guidance on how to respond and facilitate home schooling support in the new normal is insufficient.

To bridge this gap, this article reviews the "suspending classes without stopping learning" initiative that the MEXT announced during the pandemic. It aims to provide an understanding of the opportunities and challenges of educational innovation in Japan, as well as of pedagogical developments,

specifically talent training, which is essential for educational arrangements in extraordinary circumstances. Furthermore, we share insights into stimulating an operative home-learning pattern and facilitating educational development for the new normal. This study focused on answering the following questions: What were the basic states of teaching and learning during the period of interest? How did MEXT develop and maintain a continuous learning environment? What insights did this exceptional home schooling experience bring to talent cultivation and educational reform?

The remainder of the paper is divided into three parts. First, it outlines the status of Japanese primary and secondary schools during the initial stages of the pandemic prevention and control. Second, it presents the measures supporting MEXT's "suspending classes without stopping learning" initiative, including promoting and developing an uninterrupted learning environment, creating guidelines for home study subjects, and implementing measures to maintain students' and staff's mental health. Finally, it presents the insights drawn from these comprehensive measures and revelations.

Overview of government and school responses to the pandemic prevention and control

Since February 2020, Japan has gradually introduced countermeasures in response to the temporary suspension of schools due to the pandemic. To protect students and staff from the risk of infection, on February 28, 2020, MEXT instituted a nationwide temporary closure of schools from the beginning of March 2020 (MEXT, 2020e) and established a series of measures to safeguard students' continuous learning—which the pandemic disrupted—using more flexible means where possible. These measures included enhancing the ICT educational environment, particularly the accelerated implementation of the GIGA school program, and publishing a content portal to guide students of all levels to study at home. The GIGA school program the MEXT proposed in December 2019 (MEXT, 2019a) aimed to ensure that every public elementary and secondary school student in Japan was equipped with a computer connected to a high-speed network. This was achieved ahead of the original schedule, which was set for March 2023.

Furthermore, by June 1, 2020, 99% of public schools in Japan had reopened (Lv, 2020). However, due to the changing infectivity of the pandemic, schools still faced challenges such as sudden closures and the provision of support for students and staff unable to attend classes in person. These challenges required more sophisticated and dynamic responses to meet educational and teaching needs during the new normal. Thus, MEXT further strengthened human, financial, and material resources to support the resumption of schooling. Moreover, MEXT collaborated with broader organizations, such as the Japan Student Services Organization, NHK Educational TV, and the National Council of Mutual Aid Organizations for Faculty and Staff, to provide diverse

resources and follow-up on students' and staff's mental health. These efforts ensured the maintenance of a scientific and orderly teaching and education system, providing a strong impetus to sustain continuous learning during class suspension.

Advancing and developing the continuous learning environment

The imperative for continuous learning due to the pandemic has further prompted Japan to accelerate and improve the ICT educational environment. Its flexible application in education guarantees more optimal, personalized, and creative learning for children living in Society 5.0, and also helps narrow the inequality gap (Hagiuda, 2019). According to a survey on ICT usage in schools pre-pandemic, Japan ranked the lowest among the Organisation for Economic Co-operation and Development (OECD) countries in terms of classroom time spent using digital devices (OECD, 2020). Moreover, the percentage of students who owned computers varied significantly across regions within Japan. The highest prefecture-level ownership rate (1.9 persons per computer) was 3.9 times higher than the lowest (7.5 persons per computer) (MEXT, 2019b). However, the pandemic has compelled students and staff to temporarily suspend their attendance at offline schools, thereby creating a surge in the demand for more convenient digital teaching materials, a more flexible information-based pedagogical environment, and a more adaptable academic environment. MEXT adopted measures to maintain continuous learning wherever possible and to ensure implementation of the "leave no one behind" initiative, which is also a priority in Society 5.0.

The super-intelligence proceedings underlined in Japan have left room for the advancement of a continuous learning environment. Society 5.0, Japan's concept of a super-intelligent society, was first proposed in the *Fifth Science and Technology Basic Plan (Fiscal 2016–2020)* (Cabinet Office of Japan, 2016). Its emphasis on the construction of an intelligent environment and the utilization of ICT has provided the backbone for the creation of a new system that closely integrates the digital world and practical conditions. It is no longer finances but data that are connecting and driving everything (Office of the Prime Minister of Japan, 2019). The vision of a data-driven Society 5.0 for the integration of intelligence into a continuous learning environment has provided sufficient technological dynamism to accelerate the construction of more flexible teaching and learning models and the creation of a better educational environment. This paves the way for more equitable educational conditions and can foster students' contemporary qualities and competencies.

Accelerating the application of ICT in education

Even in exceptional circumstances when students and teachers cannot attend school, the MEXT has made every effort to guarantee continuous learning by actively improving the ICT education

environment and accelerating the GIGA school program. The MEXT requires schools to ascertain each student's home ICT environment and, based on their understanding of the national situation after consulting with suppliers, experts, and local governments, create a context in which students are not constrained by time and distance, thereby maximizing continuous learning. More importantly, the MEXT aims to guarantee technical and financial support for terminal-grade and financially disadvantaged students (MEXT, 2020a). The findings from the pandemic have shown that an average of 85% of primary and secondary school students maintained continuous learning through ICT support during school closures (MEXT, 2021).

The accelerated realization of the GIGA concept in schools helped maintain implementation of interactive online education to the maximum possible extent. Initially, GIGA was to be realized in schools in 2023, but the pandemic hastened its implementation. Given the GIGA school program's achievements, MEXT set April 3, 2021, as the beginning of its operation, which became the official date regarding when each public elementary and secondary school student in Japan would be able to access a computer. As of late July 2021, 84.8% and 91.3% of public primary and secondary schools nationwide, respectively, use terminals (tablets and laptops) across all grades (MEXT, 2021).

The application of ICT in education is a viable means of sustaining continuous teaching and learning during exceptional circumstances and an effective way of sharing educational resources and engaging in intercommunication. The improvement of the ICT education environment based on technology empowerment and the application of the GIGA concept to schools has provided strong support for ensuring implementation of the "suspending classes without stopping learning" initiative. These factors have also provided the necessary impetus for the creation of a more flexible and sustainable learning environment. Simultaneously, a more diverse educational context for students living in Society 5.0 has been created, particularly after the imbalance in access to e-learning terminals was addressed. Additionally, broadening the scope of e-education has contributed to educational equity and has provided opportunities to improve the efficiency of educational affairs.

Launching learning support to encourage home schooling

The Children's Learning Support[1] portal is among the leading home schooling guides, and it prevents severe delays in students' learning (MEXT, 2020d). On March 2, 2020, the MEXT launched a home-based self-learning portal for students of all grades nationwide, the content of which includes interest- and school-subject-based guidance modules. Learning support provides ideas and directions for students and assumes an essential role in providing home schooling guidance. Websites take advantage of the Internet's interconnectivity. Through cooperation with multiple entities, learning support offers a variety of electronic educational materials and platforms that further expand and enhance access to resources and maximize the protection of students' learning.

This section discusses home-based self-learning guidance on fundamental school subjects in primary and secondary schools and presents the basic concepts that play an essential role in guiding students' self-learning. The guidelines for language subjects (Japanese and foreign languages) are based on textbooks and supplemented by other digital resources (e.g., books, newspapers, magazines, audio, video, and website content). The guidelines emphasize listening, speaking, reading, and writing, while developing students' ability to think, judge, express themselves, and appreciate language culture. The math and science guides focus on reviewing, testing, and deepening students' understanding of the subject matter. Guides on visual arts and music focus on cultivating students' capacity to produce and perform related work and nurture their artistic sensibilities through lectures and videos on websites. The home economics and technology subject guides focus on cultivating students' application of life skills and improving their lifestyle through pedagogical knowledge. The special activities offered focus on students' family role identification, which is conducive to clarifying commitments in the family context, while helping to entrench self-assignments in study and life. The special activities also strengthen independent problem-solving skills.

Learning support websites, which are constantly updated, currently fall under the category of lifelong education. The subject-based guides provide directions for self-learning, and the home schooling experience functions as a foundation for students to practice applying classroom knowledge and bolstering their autonomous ability, information literacy, and problem-solving capacity. Students are also encouraged to learn how to think, acquire knowledge and skills, and survive, while consolidating and deepening their knowledge base.

Improving complementary measures to ensure continuous learning

The MEXT has implemented a series of measures to ensure continuous schooling and accommodate the long-term nature of the pandemic. Although in-person schooling has resumed in Japan, there are still cases in which teachers or students are unable to physically attend school because of the threat the virus poses. Therefore, the MEXT has intensified its policy of providing human and financial support to ensure a safe, healthy, and continuous learning environment.

From the classroom practice perspective, the MEXT recommends staggered classes with restructured class hours to prevent crowded teaching environments or delayed course completion (MEXT, 2020a). For example, the high school at which one of the authors of this article teaches reduced class time from 50 min per class to 35 min per class, scheduled classes on Saturdays, and shortened the long school holidays. Furthermore, students unable to attend in-person classes can take home the ICT terminals supplied by the school and stay connected by attending synchronized online classes, while receiving distance learning guidance at home. Evidently, a more flexible classroom model combining online and in-person methods strengthens continuous learning and allows for timely and accurate tracking of students' academic progress.

Regarding financial support, the MEXT strives to "leave no one behind" by providing agile measures such as fee subsidies, waivers, deferred payments, and/or scholarship support for students from underprivileged families. Moreover, the MEXT has optimized the configuration of staff deployment, the highlight of which includes flexibility for principals or deputy principals to teach in place of teachers temporarily unable to attend class. The MEXT also advocates cooperation between schools and education boards to improve the feasibility of the temporary transfer of teachers (MEXT, 2022a). Furthermore, the MEXT has provided substantial human resources through the mass recruitment of eligible retired teachers, tutors, university students, education-related nonprofit organization staff, and community workers as supplementary teachers (MEXT, 2020b).

The MEXT has also prioritized the mental health of students and staff, with the aim of ensuring a positive mindset for educational progress. Changes in the level of virus infectivity have posed challenges to the initially relatively stable space, time, and format of teaching and learning, definitively impacting students' and staff's mental health. Since the outbreak, the MEXT has actively assessed students' mental health through three measures: (1) Schools and teachers are required to contact parents regularly and promote parental supervision; (2) 24-h emergency help is provided to assist children suffering from stress, bullying, and prejudice due to the pandemic; (3) online patrolling has been strengthened, especially for students who are unable to attend school, to prevent discrimination against students struggling with the pandemic. The MEXT has also focused on alleviating faculty's workload during this period (MEXT, 2020d). Maintaining good mental health is crucial for faculty members, as it helps them contribute to a comprehensive, stable, and harmonious pedagogical system.

Findings and conclusion

When students and teachers cannot attend school physically, informatization helps flexibly schedule learning time and spaces, providing a strong incentive to support continuous learning. Since the outbreak of the pandemic, the MEXT has been actively and rapidly deploying comprehensive support measures that adhere to the values embodied in the "leave no one behind" initiative to strengthen the overall ICT educational environment and self-home-learning instructions, with the aim of ensuring students' continuous learning (MEXT, 2020c). The extensive practice of information-based education in Japan has laid the foundation for the future development of highly integrated virtual reality interactive learning models and has provided an opportunity to create new patterns of human–machine co-education. Home schooling also supports talent cultivation. However, the goals of maintaining the technological strengths of information-based education, developing a collaborative blend of diverse teaching and learning models, and avoiding the creation

of a new digital divide remain to be achieved. To summarize, this review highlights the key opportunities and challenges in education during the new normal. It aims to provide valuable references for the future supply of more flexible and efficient pedagogical models and a path for educational innovation and child development. The insights obtained from this research are as follows.

GIGA's role in educational innovation

The remarkable increase in online learning during the pandemic has shattered the logic that school suspensions stop teaching and learning. Japan's accelerated realization of the GIGA in schools has provided an opportunity to promote a new pattern of human–machine co-education nationwide. Although Japan has a sense of supremacy regarding their in-person learning culture (Fujikawa, 2020), where students, parents, and faculty need physical rooms to manage information-based education effectively, it is clear that adjustments and transformations to concepts, technology, and psychology are necessary even if the classroom or learning place remains unchanged.

The rapid spread of the pandemic has helped improve Japan's ICT-supported educational and e-learning environments. As of July 2021, 96.2% of Japanese primary and secondary public school students had been provided with computers (MEXT, 2022b). This has not only created a solid impetus to support continuous learning but has also deepened the informatization of education in Japan. It has provided an opportunity for the integration of online and in-person education and encourages sustainable future innovation through diverse educational approaches.

Impact of home schooling experience on new models of talent cultivation

Cultivating students' self-learning ability is a fundamental aspect of modern education. The home schooling experience during the pandemic can be viewed as a natural foundation for learning through proactive exploration and practical application of textbook knowledge. However, the learning environment and style of home schooling place greater demands on students' independent thinking, self-planning, and information literacy skills therefore differing from school learning. Although schools are the primary places for education, learning-place boundaries are becoming increasingly blurred with the rapid advancement of educational informatization. Moreover, imparting knowledge within a limited and defined period in school cannot permanently satisfy rapid knowledge iterations. Therefore, the self-learning ability has become essential for survival in modern society and is a fundamental prerequisite for lifelong learning. The home schooling experience provides a natural opportunity for students to practice and test their self-learning abilities. It also helps faculty members accumulate the required experience for more diverse educational models to meet the curriculum goal of cultivating students' self-learning capacity.

Contribution of family role identification to collaborative education

Identifying appropriate family roles is conducive to family functioning and creates a sound family education ecology that facilitates collaborative education. Although home schooling experiences can provide children with plenty of time at home with their parents, families face more complex physical and psychological situations than usual during the new normal. Recognition of each family member's vital role can further promote students' sense of autonomy and responsibility and increase the viability of self-learning and living management, which the special activities guidance emphasizes. Special activities do not constitute a discipline but are rather a part of the primary and secondary school curriculum included to promote academic achievement. This component is regarded as a pillar of Japanese school education (Tsuneyoshi, 2012). Furthermore, effective participation in family functioning is inseparable from identifying parents' roles in the family. When parents set a good example that corresponds to family responsibilities and engage in active communication with their children, they not only promote children's development but also provide a strong background for collaborative education, thus improving the quality of family education.

Balancing value rationality and instrumental rationality in e-learning

The advancement of information-based education has facilitated smart teaching; however, it also demands more professionalism from teachers. Rational adherence to appropriate educational technology tools can smarten teaching modes and scenarios and expand the platform for sharing quality resources and progressive educational ideas. However, the normalization of technology-enabled education also requires renewing teachers' literacy and developing their competencies, thus ensuring the educational informatization process' instrumental and value rationality. Therefore, teachers need to be proficient to ensure that the appropriate application of ICT is flexible in the teaching environment. They must scientifically design the classroom structure and stimulate a dynamic, lively, and warm classroom culture based on value-based rationality, which can foster people-oriented nurturing values.

Improving the ICT education environment and educational equity

To some extent, further enhancement of the information-based education process has become a practical means of promoting equity in education in Japan. In particular, the GIGA school program has improved access to educational resources for students from economically disadvantaged families. However, the regional digital divide, which has existed for a long time in Japan, could further exacerbate educational inequalities by creating an imbalance in the mastery level of information education, such as inadequate digital skills and a gap in proficiency. As guides,

designers, and explorers of the teaching process, teachers should update existing concepts and experiences in education informatics to continuously improve data literacy.

Contributorship

Pu Yu collected policies, notices, and reports issued during the pandemic to support student learning through the Japanese Ministry of Education, Culture, Sports, Science, and Technology website. After translation, she conducted the policy review and wrote the article. Keigo Anezaki collected supplementary data and revised the translation of policy and notice content and specific measures and implementation conditions; provided relevant cases, data, and advice based on their own experience; and co-authored the article.

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Note

1. "Children Learning Support": https://www.mext.go.jp/a_menu/ikusei/gakusyushien/index_00001.htm

References

Cabinet Office of Japan. (2016). *The fifth science and technology basic plan (fiscal 2016–2020)* [in Japanese]. https://www8.cao.go.jp/cstp/kihonkeikaku/5honbun.pdf

Fujikawa, D. (2020). *Novel coronavirus pandemic and school education: The possibility of online learning and its subject* [in Chinese]. https://www.nippon.com/cn/in-depth/d00585/#

Hagiuda, K. (2019). *The realization of an ICT educational environment that is individually optimized for each and child fosters creativity* [in Japanese]. https://www.mext.go.jp/content/20191225-mxt_syoto01_000003278_03.pdf

Lv, S. (2020, June 4). *MEXT: 98% of schools nationwide have resumed classes* [in Chinese]. People.cn. http://japan.people.com.cn/n1/2020/0604/c35421-31734635.html

Ministry of Education, Culture, Sports, Science and Technology of Japan. (2019a). *About GIGA School realization promotion* [in Japanese]. https://www.mext.go.jp/a_menu/other/1413144_00001.htm

Ministry of Education, Culture, Sports, Science and Technology of Japan. (2019b). *Measures to promote the utilization of advanced technologies that support learning in the new era* [in Japanese]. https://www.mext.go.jp/component/a_menu/other/detail/__icsFiles/afieldfile/2019/06/24/1418387_01.pdf

Ministry of Education, Culture, Sports, Science and Technology of Japan. (2020a). *Appropriate implementation of weekly holiday transfers, etc. and examples of ingenuity when conducting Saturday classes, etc. in response to the new coronavirus infection* [in Japanese]. https://www.mext.go.jp/content/20200609-mxt_kouhou01-000004520_1.pdf

Ministry of Education, Culture, Sports, Science and Technology of Japan. (2020b). *Education in Japan beyond the crisis of COVID-19*. https://www.mext.go.jp/en/content/20200904_mxt_kouhou01-000008961_1.pdf

Ministry of Education, Culture, Sports, Science and Technology of Japan. (2020c). *Education in Japan beyond the crisis of COVID-19—Leave No One Behind* [in Japanese]. https://www.mext.go.jp/en/content/20200904_mxt_kouhou01-000008961_1.pdf

Ministry of Education, Culture, Sports, Science and Technology of Japan. (2020d). *Guarantee of learning when temporary closure is taken at elementary, junior high, high school, etc., for measures against new coronavirus infectious* [in Japanese]. https://www.mext.go.jp/content/20200421-mxt_kouhou01-000004520_6.pdf

Ministry of Education, Culture, Sports, Science and Technology of Japan. (2020e). *Temporary closure at elementary, junior high, high, special needs schools, etc. against new coronavirus infections* [in Japanese]. https://www.mext.go.jp/content/202002228-mxt_kouhou01-000004520_1.pdf

Ministry of Education, Culture, Sports, Science and Technology of Japan. (2021). *Survey of conditions of terminal utilization status* [in Japanese]. https://www.mext.go.jp/content/20210830-mxt_jogai01-000009827_10.pdf

Ministry of Education, Culture, Sports, Science and Technology of Japan. (2022a). *Regarding revision of guidelines for sustainable school management in response to new coronavirus infections* [in Japanese]. https://www.pref.ehime.jp/h20300/kosodate/documents/0401monkasyo.pdf

Ministry of Education, Culture, Sports, Science and Technology of Japan. (2022b). *Survey on learning guidance, etc., during temporary holidays due to the effects of new coronavirus infection* [in Japanese]. https://www.mext.go.jp/content/20220317-mxt_kyoiku02-000006590_01.pdf

Office of the Prime Minister of Japan. (2019). *Toward a new era of "hope-driven economy": The Prime Minister's keynote speech at the World Economic Forum annual meeting*. https://japan.kantei.go.jp/98_abe/statement/201901/_00003.html

Organisation for Economic Co-operation and Development. (2020). *School education during COVID-19: Were teachers and students ready?* https://www.oecd.org/education/Japan-coronavirus-education-country-note.pdf

Sato, H. (2020). Educational responses to the pandemic in Japan: Primary and secondary education policy issues. *International Studies in Educational Administration (Commonwealth Council for Educational Administration and Management)*, *48*(2), 64–69. https://www.researchgate.net/publication/343628102_Educational_Responses_to_the_Pandemic_in_Japan_Primary_and_Secondary_Education_Policy_Issues

Sato, M., & Saito, E. (2022). How can we stop emerging educational inequality: An expert teacher's perspective on Japanese issues due to COVID-19. *Management in Education*, *36*(2), 97–100. https://doi.org/10.1177/0892020620981949

Takaku, R., & Yokoyama, I. (2021). What the COVID-19 school closure left in its wake: Evidence from a regression discontinuity analysis in Japan. *Journal of Public Economics*, *195*, 104364. https://doi.org/10.1016/j.jpubeco.2020.104364

Tsuneyoshi, R. (2012). *Special activity overview: Japanese whole-child education. Teacher's guidebook* [in Japanese]. https://www.p.u-tokyo.ac.jp/~tsunelab/tokkatsu/cms/wp-content/uploads/2016/03/Tokkatsu_Guidebook_Chinese.pdf

UNESCO. (2020). *290 million students out of school due to COVID-19: UNESCO releases first global numbers and mobilizes response*. https://www.unesco.org/en/articles/290-million-students-out-school-due-covid-19-unesco-releases-first-global-numbers-and