Integration of Curricula (Curriculum 2013 and Cambridge Curriculum for Junior High School Level in Three Subjects) in Pandemic Situation

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Abstract
This study aims to determine and set the effective integration of the Cambridge Curriculum as an adaptive or supporting curriculum to the National Curriculum (K13) during the pandemic. The object is simplified into three junior high school subjects: mathematics, science, and English. This study applies a qualitative method by comparing and adopting the syllabus indicators of three subjects into the National Curriculum (K13) and adapted to online learning. The result shows that integration suitability is compared and matched between the two curricula and is ready to be applied during the pandemic. The expected implication is that the Cambridge Curriculum can help schools around the world improve the quality of learning, especially during the pandemic.

Keywords
Curriculum integration, cambridge curriculum, learning adaptation, learning adoption

Introduction
Every school, both domestically and abroad, especially in Western countries, instills in every student a responsible attitude, which aims to form self-sovereignty and compete and survive in the future (Kwapisz, Hughes, Schell, Ward, & Sybesma, 2021). This attitude allows students to freely manage their knowledge collectively and in stages from basic education to advanced levels. In this way, students are expected to be independent and have a stock of knowledge when they become students when they grow up and work (Avrich, 2014). In its application, the educational method usually applied by most schools introduced and taught to students is the discovery method. This system aims to educate students to be suitable to conduct exploration and develop themselves singly and responsibly to understand the knowledge attained and develop it supported by formal and informal education. The advantage of this method is that they do not need to hesitate to express their opinions after comparing what they see theoretically and the applications they get or observe around them (Canh, 2020). Through learning this system, scholars will discover new effects, which can enrich and strengthen their
knowledge, and of course, can also ameliorate the quality of their education to be suitable to survive and contend in the field of work in the future.

The application of the education system is a deepening of realistic aspects that answer the discovery system. Through the operation and deepening of realistic aspects, it can be said that seminaries in developed countries are more concerned with specialization in proficiency and experience in colorful fields of life according to the bents and competencies of scholars (Jumadi, 2015). With the operation and heightening applied in the system, the right way to consolidate knowledge is through majors and heightening of moxie. In Indonesia, the heightening of moxie and chops is generally carried out in elderly secondary and vocational seminaries (Rochmawati, Timan, & Kusumaningrum, 2019). With the progression of practical technology at the secondary, academic, and tertiary situations, majors and skills development began to be directed and started at an earlier education position. According to McIntosh, Dixon, & Pierson (2011), in the earlier stage, the preface of chops and majors will make it easier for scholars to choose their strengths and bents and go directly to the world of work or continue to the council. Likewise, the development of scientific disciplines in social, language, trades, and humanities, approaches, and preface of operations and technology are also applied. Therefore, the pattern of educational development in the education system in Western countries is to use a schematic press pattern (Barone & Ruggera, 2018). This pattern intends to show education of Western countries in progress wants scholars to become experts in their separate fields. In its operation, the class becomes a tool that can epitomize, bind, and explain educational approaches so that it is more structured and has realistic pretensions and makes it easier for seminaries and pupils to achieve educational pretensions.

The curriculum is positioned as a mentioned and controlled plan distinguishing the items, content, and studying accouterments and the techniques used as recommendations for learning conditioning to reap positive educational pretensions (Romiszowski, 2016). The substance of the class is related to the schooling machine, which can be explicated because of the preparation of content material, syllabus, strategies, and opinions used within the literacy technique. The curriculum is deposited on the center of the whole academic system. In step with Bereiter & Scardamalia (1989), elegance has a role in guiding and training all learning conditioning to achieve powerful academic pretensions. Further, the elegance can describe and explain the problem count number, to be reviewed through professionals as a supply of generalities from the theoretical base developing instructional systems in academic establishments. Class as a system refers to the general description of all academy institutions, or selection-making systems approximately elegance, unique composition, and procedures for growing, enforcing, assessing, and reaching elegance as written documents or stoutly controlled elegance (Khan & Law, 2015). The developments of the principles of the class have to be applicable, flexible, sustainable, sensible, and powerful. In substance, the elegance must-have four factors, academic pretensions, instructional content material, learning gests, and assessments by thinking about elements comparable as scholars as society as elegance objects and the operation of the evaluation gadget.

Although it has been directed in the literacy structure in the National Curriculum (K-13), Indonesia is a country that has numerous seminaries that apply the Cambridge Curriculum as a literacy conception, whether used as class support, class integration material, or the main class. In Indonesia, the application rate of Cambridge Curriculum literacy is relatively high. According to Wardani & Nugroho (2016), numerous seminaries use the Cambridge International Curriculum. The scholars are tested in their understanding of the class instruction and it is estimated that the examinees have reached test-takers. This number has significantly increased since 2012. The operation of this class is extensively used in schools with foreign markers (SPK). Saputro (2012) argues that transnational vision and norms as graduate service norms and product quality have a systematized impact on the academy operation system. This opinion reinforces that the Cambridge Curriculum can be applied effectively in Indonesia.

However, learning must be adapted to online learning due to the pandemic. According to Allen (2016), the implementation of programs that are run effectively and not limited by space can be realized in the form or format of online learning, namely a structured learning network that combines the separation of teachers and students due to learning during a pandemic. The online learning method provides great opportunities for students and is facilitated independently in accessing learning materials provided by teachers (Huang, Liu, Tlili, Yang, &
Wang, 2020). The technical combination of online learning, conceptualized with Cambridge Curriculum integration learning, can answer learning challenges during the pandemic.

Understanding of the class should be studied constitutionally. Education System stated that the class is a set of plans and arrangements regarding the objects, content, and learning accouterments and styles that are used as guidelines to regulate literacy conditioning to achieve certain educational pretensions. The phrase elegance inside the schooling system, in general, can be interpreted as the formulated content, syllabus, patterns, and evaluations used in the literacy method. Consistent with Pyle and Danniels (2017), the elegance immaculately has a valuable position within the complete instructional procedure which also functions to direct all mastering conditioning to gain academic pretensions. Further, the magnificence explains the concern remember and literacy, so one can be reviewed via magnificence experts as a supply of generalities from the theoretical base of class improvement in several instructional institutions. As a device, the elegance is a typical image of academy association that is one of the bases for making opinions and programs regarding literacy rules, the composition of academy members, and processes for growing student requirements, perpetration, assessment, and fulfillment as a written or dynamic record.

The policy phrasings are not made just to stagnate as a formula but must be enforced functionally. The standard for the success of class perpetration in education policy is its perpetration. Likewise, it is emphasized that through perpetration, it would be clear whether an indispensable expression of problem working was really in agreement with the problem or not. Through perpetration, it will also be known whether, after enforcing the indispensable problem working that has been formulated, it will beget new problems or not. In short, perpetration can measure whether a policy is accurate or not, applicable or not, and whether a policy is realistic or not. Likewise, Cooper (2011) concludes that enforcing programs in education is a commodity that, although delicate, is also a very important task. Frequently, the failure of a policy does not lie in unprofitable perpetration but the mismatch between a particular problem and the result offered by a policy. It was emphasized that the main issue of policy perpetration is aligning the right programs with the right problems. According to Sáez-López and Román-González (2016), the policy dimension related to class integration policy is the specialized dimension, which includes educational planning, which includes ways and models of class development integration, perpetration in the literacy process, and evaluation of conformity with public standards.

The success of the curriculum will affect the success of education. According to Meij and Merx (2018), the curriculum consists of four main aspects: educational objectives, educational content, learning experiences, and assessments. The relationship between these four aspects and education policy should always receive attention in curriculum development. In developing the curriculum, there are general development principles that have been applied in schools by policymakers and schools. There are some general principles in curriculum development. The first principle should be about applicability. The class must have two types of applicability: videolict external applicability and applicability within the class itself. Applicability beyond the class’ intended purpose, content, and literacy processes must be applicable to society’s demands, requirements, and developments. The class prepares scholars to be suitable to live and work in the community. The class must also have applicability where there’s conformity or thickness between class factors, videolict between objects, content, delivery processes, and assessments. This internal applicability indicates a cohesive class. The second principle is flexibility; the curriculum must choose a flexible or flexible nature. The curriculum prepares children for present and future life, here and elsewhere, for children of diverse backgrounds and abilities. A good curriculum is a curriculum that contains solid things, but its implementation allows adjustments based on local conditions, time and abilities, and children’s backgrounds.

The third principle is continuity, namely continuity. Children’s development and learning process takes place continuously, not interrupted or stopped. Therefore, the learning experience provided by the curriculum must also be continuous between one class level, with another class, between one level of education and another, and between levels of education and work. Curriculum development needs to be carried out simultaneously. There needs to be communication and collaboration between elementary school curriculum developers and junior, senior, and tertiary institutions. The fourth principle is practical, easy to implement, simple tools, and low cost. This principle is also known as the efficiency principle. However good and ideal a curriculum maybe if it requires highly specialized and expensive skills and equipment, it is impractical and difficult to
implement. Curriculum and education are always implemented within a limited time, money, tools, and limited manpower. The curriculum is not only ideal but also practical. The fifth principle is effectiveness. Although the curriculum must be cheap and simple, its success must still be considered. The successful implementation of this curriculum is both in quantity and quality. Curriculum development cannot be separated and is the elaboration of educational planning. Planning in education is also part of government policy in education.

Cambridge International Curriculum and examination is a unit of check operation at the college of Cambridge, which additionally provides a transnational elegance for relinquishment in all countries. The class is dependent and designed inside the UK and acclimatized to the necessities of scholars that are expected to satisfy their unborn challenges. Utmost international locations in Europe use this magnificence as the main magnificence and a helping magnificence. Cambridge College is the organizer of the Cambridge worldwide Curriculum and examination (CIE), which has the arena’s biggest transnational elegance for youngsters improved 14-19 instances. In step with Isno’s (2019) exploration and compliances, the Cambridge program, which presents examinations from abecedarian to secondary situations and provides a category or body, has been enforced in addition to seminaries from 160 international locations in the world, the US, Asia Pacific, Europe, Middle East, North Africa, South Asia and also South Africa. CIE has four popular qualifications, videlicet Cambridge primary (5-eleven times), Cambridge Secondary 1 or Cambridge lower Secondary (11-14 times), Cambridge Secondary 2 (14-sixteen times), and Cambridge superior (sixteen-18 instances).

The Cambridge Class supports academy leaders and policymakers in making informed opinions and provides a coherent class structure. Some schools in Indonesia choose to borrow the entire Cambridge Curriculum series. Others offer only many used to support an original or public class, while numerous seminaries combine the Cambridge program with other public and foreign programs. This companion applies to all of these approaches. The principles and practices outlined in this companion are grounded on our experience, harkening to what seminaries want to achieve through their class and informed by exploration- grounded stylish practices. Each academy is a unique community with its own identity and will be at a different stage in its elaboration; some will start while others will estimate where they will see it ameliorate terms and practices. This companion was written with this fact in mind. Class, pedagogy, and related assessment are innately class- concentrated within the broader academy policy and practice environment in which it is bedded.

The nimbus contagion (Covid-19) epidemic in Indonesia impacted colorful sectors, including education and education. In precluding the spread of the virus in the educational surroundings, the Ministry of Education and Culture (Kemendidikbud) has issued Indirect Letter Number 3 of 2020 concerning Prevention of Covid-19 in Education Units. According to Gheytasi, Azizifar, and Gowhary (2015), technology influences technical and learning strategies in adapting learning to the pandemic period. Hermingsih (2021) argues that in the application of online learning, the internet is used as a forum to help optimal learning activities. Various applications on the internet and learning materials will be a solution.

In implementing the curriculum in Indonesia, enhancing the general public class with the Cambridge Curriculum needs to be incorporated. Fogarty (1991) states that there are ten ways to combine elegance, videlicet fractured model, linked version, nested model, sequencing model, combined model, webbed model, threaded version, incorporated version, absorption model, and community version. Of the ten elegance models, integration is grouped into three corridors: fractured model, related version, the nested version protected in integrating for one form of concern in English. Krutka and Carpenter (2016) state that magnificence integration takes the shape of reminiscent literacy (tutoring related to the identical field of observation) or combined (the usage of centrally organized thematic devices). Technically, if enforced rightly, scarcities within the country-wide Curriculum will be rounded with the aid of the Cambridge Curriculum, especially in introductory topics similar to Maths, Technology in related to informative study, and English.

The integration model agrees with the mixing of the National Curriculum and the Cambridge Curriculum in this literacy is an intertwined model. In step with Kristanto, Suharno, and Gunarhadi (2017), the nested version is a class integration model that targets the mastery of social chops, allowing chops, and the functionality to understand the fabric inside the situation count, the three assignments. In this examination, the authors simplified the national and Cambridge Curriculum, acclimated to literacy and online literacy effectiveness. The
writer integrates the primary syllabus on the junior excessive school role that is simplest directed at gaining knowledge of mathematics, technology, and English (Yabie, Husain, & Badu, 2021).

Method
According to Fogarty (1991), several approaches or models combine the literacy device and sophistication, such as nested models, sequencing style, included models, immersion models, and network models. Specifically for curricula integration, integration curricula theories could mutually reinforce the advantages of each curriculum (O’Shea et al., 2015; Stough, Ceulemans, Lambrechts, & Cappuyns, 2018). The author chooses the mixing version with a qualitative device inside the integration version. This look uses a descriptive qualitative method to assess due to the fact this has a look at pursuits to explain a simple mixture of the syllabus. Pratama and Al-Ghazali (2019) argue that this gadget is an exploration gadget that describes or expresses items in abstract or concrete forms. Sari (2015) indicates that qualitative information must be gathered via remark and assessment ways to assist this announcement. By comparing the syllabus basics in the 2013 elegance and the Cambridge Curriculum in 3 Junior excessive college subjects (Applied Arithmetic, Combined Science, and English), the authors acclimated and coupled them. Below is the procedure of integrating the Cambridge Curriculum into the unique magnificence referred to as the 2013 magnificence. The way to be prepared is to increase a college preferred English literacy frame from the Cambridge Curriculum to be included with the college norms of the 2013 class. The pattern medicinal drug is not as good as high academy capability within the fields of Mathematics, technology, and English. It is expected that the reinforcement of integration curricula could design effective integration and be applied in integration.

Results and Discussion

Results
Effective integration of a program, including the curriculum, will be good if a comparison is made first. This comparison is made so that it can be seen if there is a match or contradiction so that integration can be obtained optimally and is effective for being implemented. In balancing curriculum integration, especially in online learning, the components of ability, productivity, and STEM character aspects need to be adjusted for the continuity of online learning and the effectiveness of curriculum integration. STEM is an acronym for applying to learn related to science, technology, engineering, and mathematics. Even if at first glance that many subjects and disciplines are not at all related to STEM, the form of pandemic learning forces all teachers, both teachers outside of science and technology disciplines, in general, to learn, adapt and teach using STEM learning (Shukshina et al., 2021).

The application of STEM learning, especially technology and information, is expected to make it easier for all disciplines to be taught by teachers during the pandemic, especially in online learning. According to Ottenbreit-Leftwich, Liao, Sadik, and Ertmer (2018), disclosure of information that must be seen from a positive perspective will facilitate teachers in teaching and broaden learning perspectives for students who can gain knowledge and knowledge through technology, especially openness to the world of education in internet access. In the development of learning, the relationship in the use of technology will always develop, and teachers and students must adapt to use it. Teachers and students will be able to communicate and carry out the teaching and learning process more developed and can complete lessons in textbooks in general.

Especially in learning the three subjects of Mathematics, Science, and English, the openness of literacy sources will be abundant enough. Teacher teaching references and student learning will be expected to develop the quality of learning outcomes compared to before. The application of STEM in this pandemic period, especially in these three subjects, must be cultivated and adapted, even though the application of the development of the three lessons must be accompanied by social interaction where students and teachers were initially brought together before the pandemic period in the teaching process. However, to reduce this obstacle, virtual meetings such as Google Meets, and Zoom Meetings can answer the learning process challenges where students and teachers must be brought together to interact.

Of course, in the application of online learning, especially in the effectiveness of the application of STEM, it would be better if previous studies were estimated to have been effective in their application. From previous
research (Rochman et al., 2020), it is necessary to harmonize STEM abilities, productivity, and characteristics related to information disclosure on the internet during online learning. They align STEM Capabilities, Productivity, and Character, whose indicators are operating a smartphone/laptop, knowing the scientific aspects of features, recording audio, recording video, sending data, and handling mathematical dimensions. Able to produce quality images/reports, quality audio recordings, quality video recordings, quality comments/analytical reports, and distance learning procedure skills and have the character of honesty, hard work/sincerity, caring, thoroughness, and obedience during distance learning far.

The use of STEM in integration as described above can maximize the application of both curriculum programs and be adapted as effectively as possible. The existence of online learning, if it is on the usability of STEM and harmonized from the results of comparison integration, will greatly help the success of the implementation of integration. Especially during the pandemic, and it is hoped that this pandemic will end soon, the use of STEM will always be effectively implemented and applied so that the development of openness of the process and learning outcomes are getting better.

Discussions

Integration in Mathematics

In integrating Matematika (K13) and Mathematics (Cambridge Curriculum), the effectiveness of integration can be assessed by comparing the main syllabus, especially in appreciating and identifying the application of arithmetic and its usefulness from the learning period in adolescence until it can be applied in concrete science which is usually asked in problem-solving questions. The application of theoretical mathematics learning that can strengthen the practice and usefulness of arithmetic will be mutually reinforcing (Godino, Bateman, & Font, 2019). The following is the result of the integration:

1. Appreciate the rules of mathematics, with identification and outline. In the integration and conformation of kinds of appreciation of arithmetic may be applied to pupils on the fineness and significance of arithmetic, the variations among the shape and patterns of mathematics, the connection of the colorful branches of arithmetic and connections with different disciplines, the transnational components of mathematics, its artistic and literal importance and its element in the actual world, and its use mathematics literacy operations and web sites that are in settlement with introductory skills, in particular within the use of calculating machines.

2. Examine and communicate the concrete and summary nation-states related to the traits they analyze at academy singly or in groups that are communicated online via online organization meetings and social media.

3. Acquire fine introductory chops that are suitable for further literacy and advanced mathematics literacy that reflect the results of reclamation of information about colligative parcels of results in everyday life and can be attained concrete operations that can be viewed on Youtube.

Integration in Science

In science learning development, especially in STEM, science lessons will need additional references, which usually cannot be obtained from textbooks or previous learning outcomes. Ideally, science learning, both in the National Curriculum (K13) and the Cambridge Curriculum, the application of science learning will be very effective if it is carried out in field tests, laboratories, and simple field research that can be done by adolescent students (Isno, 2019). By the current pandemic condition, the limitations for outgoing access should be minimized as much as possible. However, using videos both on internet learning sites and online video playback by teachers is expected to be a temporary solution. The following are the results of the integration of science learning from the comparison of the two curricula:

1. Develop relevant, useful, efficient, and effective skills to learn and apply the knowledge that can be applied in; Measurement, Substance, and Its Properties; Mechanics and the Solar System; Waves, Electricity, and Magnetism and; Living things and their environment. The learning approach encourages students to learn a
more systematic approach to communicative and efficient problem solving through the science language and encourages students to communicate science learning with people at home.

2. Analyzing colligative phenomena of science that allows students to appreciate science as a social subject and related to the effects and limitations of economics, technology, ethics, and culture as well as analyzing and comparing scientific phenomena in science books with online learning through videos on Youtube and conducting joint discussions, both with online classmates and with the facilitation of a science teacher.

3. Analyzing that simply applied science can be beneficial and detrimental to individuals, society, and the environment by looking at the causal references from the misuse of science in the environment.

Integration in English

In language learning, especially English, literacy resources in developing the science of writing and reading will be greatly helped by the openness of obtaining STEM information. However, sorting the material so that it can be relevant is the teacher’s responsibility, especially in the development of linguistics which usually has to be communicated in two directions (Teh, 2021). Integration in language learning must involve four disciplines in communication and social development, which is the application of linguistics in language. By comparing the National Curriculum (K13) syllabus, references can be further developed with studies of literacy and language and discourse communication obtained from the Cambridge Curriculum. The following are the integration of language learning from both curricula:

1. Observing and delighting the experience of reading erudite workshop by looking for and understanding the differences and parallels in the meanings of the corridor in the displayed textbook, the meaning of opinions that come to the main ideas, detailed arguments, detailed way, detailed events, detailed descriptions, plots, plots, and studies. In corroborating compliances, appreciate how pens express their ideas in response to erudite textbooks in different ways and perspectives and from different ages and societies.

2. Reviewing the information contained in the book and compare it with valid literary and language sites recommended by English teachers and well-known authors on social media and online search sites.

3. Communicating and exploring literary works to understand areas of human concern in linguistic elements. Those relating to the content of literary works include synonyms, word order, articles, demonstratives, possessive pronouns, tenses, passive sounds, grammatical references, conjunctions, prepositions, capital letters, conditional sentences, derivative constructions, sentences, phrases, conclusions, and references.

Conclusion

The effectiveness of curriculum integration is curriculum development to facilitate schools in improving student learning outcomes, both academic, cognitive, and spiritual. This research is applied and integrated into three subjects: mathematics, science, and English. In terms of efficiency of curriculum integration results, learning must be carried out by schools that apply two curricula and are adapted to adapting online learning. The teacher team and subject teachers can adopt the stages according to the integration table if the school has not implemented them. The purpose is that students do not experience difficulties understanding the material provided and can achieve the desired competencies in each curriculum very well. In addition, maximizing online learning and openness in obtaining learning support resources will be more effective. Effective curriculum integration will be considered successful if it is carried out within a certain period without interfering with the implementation of the local/national curriculum. In certain, the role of STEM in applied to be for the integration will improve and suit to the pandemic situational learning.
References


