



INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION & DEVELOPMENT



www.hrmars.com

ISSN: 2226-6348

Headmaster Perception of The Implementation of The Curriculum Principle Content (Catch-Up Plan) of Sri Aman Area, Sarawak

Kennedy Anak Sawing, Nurfaradilla Mohamad Nasri

To Link this Article: <http://dx.doi.org/10.6007/IJARPED/v11-i3/14350>

DOI:10.6007/IJARPED/v11-i3/14350

Received: 16 June 2022, **Revised:** 20 July 2022, **Accepted:** 30 July 2022

Published Online: 10 August 2022

In-Text Citation: (Sawing & Nasri, 2022)

To Cite this Article: Sawing, K. A., & Nasri, N. M. (2022). Headmaster Perception of The Implementation of The Curriculum Principle Content (Catch-Up Plan) of Sri Aman Area, Sarawak. *International Journal of Academic Research in Progressive Education and Development*, 11(3), 531–541.

Copyright: © 2022 The Author(s)

Published by Human Resource Management Academic Research Society (www.hrmars.com)

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: <http://creativecommons.org/licences/by/4.0/legalcode>

Vol. 11(3) 2022, Pg. 531 - 541

<http://hrmars.com/index.php/pages/detail/IJARPED>

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at
<http://hrmars.com/index.php/pages/detail/publication-ethics>



INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION & DEVELOPMENT



www.hrmars.com

ISSN: 2226-6348

Headmaster Perception of The Implementation of The Curriculum Principle Content (Catch-Up Plan) of Sri Aman Area, Sarawak

Kennedy Anak Sawing, Nurfaradilla Mohamad Nasri

Falkulti Pendidikan Universiti Kebangsaan Malaysia

Email: p111290@siswa.ukm.com.my, nurfaradilla@ukm.edu.my

Abstract

In era of the COVID-19 pandemic, had a profound impact on the whole country especially our country's education sector. Most of the education institutions had to be closed under the Movement Control Order. As a result, the Ministry of Education is learning new norms such as teaching and learning at home. Various programmes were introduced such as empowering curriculum Implementation (KPM Perkasaku) which is the Basic Content Curriculum (Catch-up Plan) programme conducted at the school level. The implementation of the Basic Curriculum Content in schools is one of initiatives of the Ministry of Education Malaysia. The school needs to conduct various interventions and coordination to preserve the implementation of the Basic Curriculum Content in schools. This study is a survey study that requires researchers to collect data using a quantitative approach where researchers need to review the headteacher's perception of the implementation of Basic Curriculum Content. As a result, 32 headmasters responded to the implementation of the Basic Curriculum Content involving 32 primary schools in Sri Aman district. The implementation this program as one of the ways for teachers to help pupils who have not yet mastered 3M skills can follow the teaching and facilitation without dropping out.

Keywords: Education, Implementation, Headmasters, Curriculum Basic Content, Proficiency

Introduction

The COVID-19 pandemic has had a significant impact on the country's education sector where all educational institutions were ordered to close during the Movement Control Order (MCO). As such, the Ministry of Education (MOE) has advised educators to implement virtual learning, a new norm learning alternative known as School From Home (SFH) system to prevent students from falling behind in access to education.

However, there are a number of issues in the implementation of School From Home (SFH) system such as student dropouts due to a number of factors including the family economy and motivation of the student himself. Thus, when the face-to-face learning session was conducted, the Ministry of Education Malaysia (MOE) implemented the Curriculum Implementation Empowerment programme (KPM PerkasaKu) which started from 1

September 2021 to 28 February 2022 to help students to strengthen their basic skills and learning level while overcoming issues that arise during SFH.

If the PerkasaKu KPM program is implemented, the Catch-up Plan has been carried out in the school rankings which involves a slight change in the provision of daily teaching designs (RPH). In this regard, professors have their own views on the Catch-up Plan program which is considered an innovation in the interim curriculum.

Background

The Ministry of Education Malaysia (MOE) is sensitive to students' learning especially when our country is plagued by the Covid-19 pandemic which is not only the country but also the whole world. Therefore, the Ministry of Education Malaysia (MOE) has established an initiative to preserve education for the benefit of the protégés by creating a program, namely the MOE Implementation Empowerment Programme. Through this programme, it is a turning point in the country's education landscape since face-to-face teaching and learning sessions were postponed due to the safety factors of the proteges. Moe has directly focused on restoring the level of mastery of students by providing strategic and focused planning.

Although teaching and learning are done at home (SFH), the MOE considers that the students' learning is carried out according to locality suitability, infrastructure facilities, readiness and capability teacher in implementing SFH according to the abilities of the pupil. The level of learning of pupils should also be considered by the MOE due to the closure of the school over a long period of time. The KPM PerkasaKu programme was implemented to help students strengthen their level of learning and basic skills. The implementation of KPM PerkasaKu has started from 1 September 2021 until 28 February 2022. The objective of this programme is to optimally increase the student's mastery of the current year's curriculum content. Second, this objective can bridge the learning gap of students that existed during the Covid-19 crisis or pandemic. The third objective is to provide curriculum support to teachers to implement teaching and learning using any mechanism. The fourth objective of this programme is to ensure that students are ready to follow the 2022 school year curriculum.

The rationale of the PERKASAKu MOE Programme is to bridge the learning gap by planning and implementing curriculum implementation empowerment programmes to provide opportunities for students to obtain basic content and required with additional time should be implemented in the form of an extended timetable or look back at how the coordination of the school calendar that has been enshrined is done by the school.

There are four main focus of teachers in the KPM PerkasaKu programme which includes enrichment and strengthening methods that all teachers need to focus on the implementation of the program. The first focus is on the Strengthening and Enrichment Strategy. This strategy plays a role in bridging the learning gap that arises due to various constraints while conducting SFH. Meanwhile, the second focus is on Literacy and Numeracy. This focus is on assisting pupils, teachers and parents or guardians in strengthening literacy and numeracy skills according to the level of students' abilities. Next, is focus on which is the strengthening the Implementation of Classroom Assessment. In this process, classroom assessment (PBD) which is an ongoing process and is an important component of obtaining information to identify and record the development of progress and achievements of pupils in teaching and learning sessions is not ignored. In order to empower PBD, this assessment is carried out continuously to ensure that the level of learning ability and mastery of students is assessed, recorded and monitored even in the PdPR period. The last focus is the Provision of a Teaching and Learning Materials Platform where a system of storage of

teaching and learning materials is created for manage, store and provide access to learning materials. All these learning resources have been uploaded in the DELIMa MOE platform involving primary and secondary schools. With this platform, teachers, parents and pupils can access the material anytime and anywhere. This material is used as optimally as possible by all parties to have a positive impact especially on the students.

In the KPM PerkasaKu programme, there is a Self-Learning Empowerment or *Student Enrichment Learning Framework (SELF)* where students can maximize their potential as well as master the skills and knowledge learned. *SELF* will make learning more engaging and meaningful as pupils are given the opportunity to choose activities, evaluate and monitor their own improvement in achievement.

The implementation which began 1 September 2021, MOE proposed that all schools to identify the percentage of implementation of Basic Curriculum Content (KAK) that has been implemented for all subjects during the period from 2 January 2021 until 31 August 2021. For subjects in the Basic Curriculum Content (KAK) which has reached 70 percent, teachers can continue the implementation of teaching and learning (PdP) while for subjects who have not yet achieved the basic content of 70 percent, teachers are required to conduct SFH by various methods. Among them are Themed Approach, Modular Approach, Project-Based Approach, Differentiated Learning and Practical Simulation.

There are various support materials in the DELIMa Platform that can be used by teachers, pupils and parents to help and strengthen skills and knowledge. All such materials can be used for enrichment activities in the hope that pupils can master all the content of the curriculum taught. Apart from helping, it can be a suitable source of reference and teacher teaching guidance for primary and secondary schools. Among the support materials for self-learning are Worksheets, Quizzes, Notes and Gamification.

The Ministry of Education (MOE) intends that teacher fully understand the KPM PerkasaKu programme which has been developed and developed as a catalyst in improving quality education on par with other developed countries. With this upgrade, it is possible to guide and guide teachers and ensure that the four main focuses can be implemented effectively.

Problem Statement

The implementation of the Basic Curriculum Content (CATCH-UP Plan) in schools is one of the initiatives of the Ministry of Education Malaysia to bridge the learning gap that has existed among students during the COVID-19 pandemic. To ensure that students are ready to follow the curriculum for the year of 2022, administrators need to ensure that teachers plan or curriculum framework to complete the content curriculum foundation in the DSKP Alignment Document during a face-to-face session in 2021. The school needs to conduct various interventions and coordination to preserve the implementation of the Basic Curriculum Content (CATCH-UP Plan) in schools. Therefore, this study should be done to assess perception of the implementation of the Basic Curriculum Content (CATCH-UP Plan) by the headmaster in schools and the effectiveness of the implementation of the program.

Objectives of the Study

The objectives of this study are to:

- Identify the headmaster acceptance of the implementation of the Curriculum Basic Content (CATCH-UP Plan) in schools.

- Identify the effectiveness of the implementation of basic Curriculum Content (CATCH-UP Plan) in schools.

Literature Review

The education sector around the world is affected by the covid-19 pandemic. However virtual learning has been replaced by face-to-face learning over school closures. Nevertheless, the implementation of virtual learning has a huge gap that needs to be fixed. According to Fontanos *et.al* (2021); Olanrewaju *et.al*(2021), among the gaps that need to be fixed in the implementation of virtual learning is to intensify virtual learning guidelines to meet the needs and contexts of different students especially the marginalized group Skopek *et.al* (2021); develop virtual learning policies, improve learning teaching by strengthening communication channels, formative assessment, and multimedia learning materials; provide offline and online options; explore video usage, mobile training centers and flexible study times.

The attainment gap between students from different backgrounds is also a determinant in academic excellence. The hierarchical tiered education system in the United States, which provides separate schools with a very different curriculum for students with different career abilities and aspirations, is capable increase the academic achievement gap of (Boneva students *et.al.*, 2021; Schofield, 2010). In addition, school educational institutions especially rural schools should enrich the school's digital teaching resources, ensure the quality of school network, enhance the ICT usefulness of teachers, information processing skills and information ethics by teachers so that the ICT gap between primary and secondary school teachers and urban and rural areas can be overcome by (Wu *et.al.*, 2021). Therefore, the competency of teachers in ICT application between teachers is also a gap that needs to be fixed in the 21st century.

In this millennium century that prioritises the achievement of the Sustainable Development Goals (SDGs), this desire is difficult to achieve without the contribution of female talent in the developing world. In a study in Bangladesh, gender equality in education was also a gap in education. The gender gap in the allocation of educational resources in households should be equalized so that the involvement of women is equal to that of men (Alonso *et.al.*, 2021; Delaney *et.al.*, 2021; Pekkarinen, 2021; Xu *et.al.*, 2022; Yu *et.al.*, 2021).

Basic facilities such as teaching aids are essential for the success of the teaching and learning process. Rural schools may differ from urban school resources; students in schools in the city and more economically developed environments often show higher achievements. Policymakers should focus on improving the learning resources available to rural schools across the region, especially in response to a lack of technological resources they are to develop students' digital competencies (Bati & Workneh, 2021; Josic *et.al.*, 2022).

According to the study of Aziz and Yang (2010), the teaching aids provided by the Malaysian Ministry of Education for schools outside the city are insufficient, causing learning sessions using the modules provided by the teacher to the learner is not memorable. Things get worse when schools outside the city or inland do not get internet access. Thus, teaching that prioritizes the use of ICT and learning in an entertained manner cannot be fulfilled. This situation contributes to the existence of a digital chasm which means a gap between people who use or have access to telecommunications technology such as telephones, computers and the internet compared to the people who don't have it. Habitually, this matter is considered a socio-economic phenomenon that puts technology beyond the achievements of people who cannot afford computers (Krueger, 2003)

Study Methodology

Study Design

This study is a review study that requires the reviewer to cite data using a quantitative approach where the examiner needs to review the headmaster's perception of the implementation of the Curriculum Basic Content (CATCH-UP Plan) in school. The use of review design can help the reviewer customize the data in several ways to answer the problem statement and the data can be collected in easy way (Piaw, 2016).

Population and Sampling

Data collection is very important in a study as data will contribute to a better understanding of the theoretical framework. Therefore, in determining the sample of the study, the process of selecting an appropriate respondent is based on the question of the study (Audrey & Nur, 2020). In this regard, the study chose to use targeted sampling as it only requires the participation of all headmasters in Sri Aman District of 32 pupil.

Study Instruments

The study instrument to be used by the researchers is a questionnaire that will answer the acceptance of the implementation of the Basic Content curriculum (CATCH-UP Plan) in schools. The instrument used is an adaptation of the questionnaire instruments of past studies according to the suitability of the study. This research instrument was distributed through Google Form application to facilitate respondents' access to the questionnaire (Rubanathan & Nurfaradilla, 2018). This questionnaire is a reliable instrument of validity as it was reviewed by a lecturer from Universiti Kebangsaan Malaysia, Dr. Nurfaradilla Mohamad Nasri.

Data Analysis Methods

Data from questionnaires is collected from Google Form. The researcher has given a time frame to the respondents to answer the questionnaire and the results can be obtained immediately. The data that has been collected will be analyzed descriptively to obtain frequencies and percentages.

Significant Studies

This study can help stakeholders to see the shortcomings and strengths of the implementation of basic Curriculum Content (CATCH-UP Plan) in schools through the perspective of the head teacher. Thus, this study can be used as a reference to the ministry when it wants to implement a similar program in the future in the event of an emergency as it is we have experienced during the Movement Control Order (MCO) during the covid-19 outbreak. In addition, this study can help the next researcher to obtain information about the headmasters view of a curriculum innovation implemented over a period of time short to overcome students learning problems.

Study Findings

As a result of the study carried out, there are 32 headmasters who have responded to the Implementation of the Curriculum Basic Content (Catch-up Plan) involving 32 primary schools in Sri Aman area. Most of the age of Headmasters who answered this respondent were around 41 to 50 years old. (37.5%) and (62.5%) of Headmasters surround age aged 51 to 60 years of teaching experience for 26 years to 30 years (65.6%) and as many as 11 headmasters

who have taught in surround of 31 to 35 years. This shows that there are many headmasters who are indeed experienced in teaching world.

The likert Scale is Used in this Survey

Scale 1 - Strongly disagree Scale 2 - Disagree Scale 3 - Moderately agree

Scale 4 - Agree Scale 5 – Strongly Agree

In the implementation of the basic curriculum content (Catch-Up Plan) which is Guidance and Mentoring, the headmasters mostly helped in creating the direction of the school with a clearer 21 Headmasters (65.6%) chose a scale of 5 while 11 headmasters chose a scale of 4. For the description of KAK (Catch-up plan) to school staff, a total of 27 responses (84.4%) chose a scale of 5 while 5 responses (15.6%) chose a scale of 4. In helping to overcome the problem by using GROW there were 4 respondents choosing a scale of 3 where they moderately agreed with the statement presented. The rest stated that KAK can overcome problems in schools using the GROW model. There are 18 head teachers identifying strengths and weaknesses with a systematic method using KAK. For the question of supervising the development of the action plan with the teacher, 20 responses (65.5%) chose a scale of 5 and 12 responses (37.5%) chose a scale of 4. This shows that the head teacher has supervised the development of the action plan based on the joint observation of the teacher. Among other activities carried out may involve Professional Learning Community (PLC) with teachers in schools to make the KAK program a success.

For the findings in Part B which is driving teaching activities and the implementation of KAK (Catch-up Plan) 26 head teachers responded (81.3%) chose a scale strongly agreed that KAK can drive teaching activities. The role of the headmaster is more focused on the direction in the implementation of KAK. A total of 24 headteachers said they strongly agreed with this statement when they focused more on the students and schools. For the scope of practice of accountability in the implementation of KAK (Catch-up Plan) 19 head teachers (59.4%) chose a scale of 5 and 13 people chose a scale of 4. For the scope of nurturing a culture of teamwork and collaboration in the success of the KAK programme, a total of 20 head teachers responded (62.5%) which fostered a culture of teamwork and collaborated collaboratively it is important to make the KAK program a success. finding a common solution must be applied among teachers and administrators so that the decisions and actions taken are mutually agreed to make this KAK program a success. On the question Only a simple headteacher agrees with the statement of PlnTAs as a guide to the teacher to implement a program as well as improvement.

In the next section, the statement of questions covering pak21 activities is the best way to meet the aspirations of the students as affirmed in PPPM 2013 to 2025. A total of 18 respondents (56.3 %) chose a scale of 5 while 14 responses (43.8%) chose a scale of 4. This can be seen that the headteacher is very committed to the pupil's well-being. If 6 aspirations of pupils are achieved, then the goal of PPPM 2023-2025 will be achieved successfully. In the practice of KBAT as a common practice of PdPc especially in KAK (Catch-up Plan), a total of 16 responses (50%) chose a scale of 5, 13 responses (40.6%) chose a scale of 4 while 3 responses (9.4%) chose a scale of 5, 13 responses (40.6%) chose a scale of 4 while 3 responses (9.4%) chose a scale of 5, 13 responses (40.6%) chose a scale of 4 while 3 responses (9.4%) chose a scale of 5, 13 responses 3. This demonstrates the mastery of KBAT skills to be one of the measuring tools to measure the level of understanding and achievement of students in all fields. In addition to KBAT, inculcate research practices to improve the professional and

quality of teaching to develop human capital. Despite the fact that there are several head teachers who choose a scale of 3 in this question, the development of human capital has become the main pillar in education in our country. The diversity of PdP techniques, able to attract pupils to meaningful learning. A total of 81.3 percent of headteachers said they agreed with this statement. For the scope of leveraging VLE in improving the quality of R&D which refers to student skills, a total of 17 responses (53.1%) chose a scale of 5, 8 response (25%) choosing a scale of 4 and 7 responses (21.9 %) select scale 3. This proves that Virtual Learning Education is underused as many school in Sri Aman are rural schools with internet achievement problems.

In the last question section of the innovative pedagogical practice engagement questionnaire to produce meaningful learning, a total of 18 respondents (56.3%) chose a scale of 5 and 14 responses (43.8%) choosing a scale of 4 where innovative pedagogy can make PdP teachers more meaningful. In order to create learning partners, a total of 24 responses (75%) have chosen a scale of 5 and 8 responses (25%) have chosen a scale of 4 and this proves that the headmaster's moth agrees with the activities in KAK this can create learning partners inside and outside the classroom. In the preparation of an interactive learning environment, 16 respondents (50%) had chosen a scale of 5, 13 respondents (40.6%) chose a scale of 4 and 3 respondents (9.4%) chose a scale of 3. A high percentage of providing pupil-centered learning. Teachers act more as mentors and let pupils find their own solutions. In order to implement Classroom Assessment (PBD) to assess the potential development of pupils, almost all head teachers stated that the implementation of PBD is to assess development and potential for students through the recording of the Level of Proficiency (TP) in the School-Based Assessment.

Discussion

Schools as agents of change play an important role in providing students with the range of skills necessary for them to live and work in the 21st century. The implementation of the Catch Up Plan program as one of the ways for teachers to help pupils who have not yet mastered 3M skills (reading, counting and writing) can follow the teaching and facilitation (PdPC) without dropping out and lagging according to other peers. All headmasters and teachers in primary, secondary, kindergarten and preschool should prepare a plan and identify the extent to which topic or skill is taught during the session school from home (SFH) system, reaching the pupil or not.

The headmasters in the schools of Sri Aman, Sarawak seem to have prepared and know the implementation of this Catch up Plan very well. Many respondents said they agreed on a scale of 4 and 5 with the questions posed in the survey form. From the study also showed that teachers in Sri Aman, Sarawak were prepared and knew the importance of the implementation of KAK as well as being able to identify the ability and mastery of learning of students who dropped out during the Covid-19 pandemic for 2 years and this KAK is important to pursue the titles, lessons and skills they have missed during PdPR.

The implementation of KAK can help headmaster to overcome problems by using GROW, identifying the strengths and weaknesses of students and teachers with systematic methods. Through KAK also, the headmaster can oversee the development of the action plan with the teacher in driving PdPC activities that are more focused on the direction of the implementation of KAK to reflect accountability and creating a culture of teamwork and collaboration among teachers and school administrators. The use of the School

Transformation Programme Intervention Plan (PinTAs) is also a guide for most headmaster to implement a program as well as to make improvements in the implementation of KAK.

The findings also found that PAK21 activities are the best way to meet the 6 aspirations of the students as affirmed in PPPM 2013-2025 where the use of the High Level Thinking Skills (KBAT) element is necessary. It is a common practice in PdPc for pupils who are still in the weak group. This is to bridge the gap in the learning mastery of pupils so as not to get too far from other classmates. The culture of research practices to improve the professional and quality of teaching is essential to develop human capital through activities that are case-based or case-based learning. Projects and the diversity of PdPc techniques need to be more appealing to students to stay focused and effective. The use of Virtual Learning Environment (VLE) is only used by some schools as it involves problems with internet access and the position of schools in rural areas. For schools with no problem using the VLE platform, teachers leverage VLE to improve the quality of PdP in improving their students' skills.

Innovative learning pedagogy can result in meaningful learning. The '*peeragogy*' approach can create a learning partner in the classroom where pupils who have mastered the title of the lesson can help vulnerable pupils. Headmasters also do their best to assist subject teachers in providing a more interactive learning environment and creating more conducive learning room conditions. In the delivery of PdPC in the classroom, the provision of pupil-centered learning is essential so that pupils can learn on their own without relying on the teaching of teachers and headmasters overseeing and monitor the implementation of Classroom Assessment (PBD) to assess the potential development of students.

Implications

This study explored the perceptions of headmaster toward the implementation of the Basic Content Of The Curriculum (CATCH-UP PLAN) when face-to-face learning session was conducted right after SFH implemented during the COVID-19 Pandemic. The findings of this study indicate that teachers, as well as learning designers, should design online learning frameworks that consider student backgrounds, especially family economic backgrounds, as well as students' learning experiences and needs in implementing School From Home (SFH) System. Along with these changes, alterations have been necessary for instructional strategies, technological readiness to implement online learning and providing support and motivation to all concerned parties. While the great hope is that the situation soon returns to normal, in the meantime, changes in learning curriculum must be made to increase flexibility, and technological readiness must be accelerated. Lastly, education must be viewed as collaborative community effort among government, teachers, parents, and schools to increase the efficacy of teaching and learning methods that have been adversely affected and ensure that students do not fall behind. This research shows that designing learning curriculum with varied learning strategies in harmony with a more flexible innovation learning curriculum, technological readiness, and collaboration is critical to successful Basic Content Of The Curriculum (CATCH-UP-PLAN).

Limitations and Suggestions for Future Research

This study used a quantitative research design encompassing surveys to explore the changes of learning environment SFH, back to normal learning environment about the impact of SFH during the COVID-19 Pandemic. As does all research, this study has limitations. This research was a small representation of elementary school class teachers who teach online throughout Sri Aman Area. For this reason, future research to be more comprehensive and requires

qualitative studies or mixed-methods studies. Future research could address the perceptions of students and parents about the implementation of Basic Content of The Curriculum (CATCH-UP-PLAN). The research could be expanded to other district in Sri Aman. Last but not least, the research could examine the development of online learning curriculum models for students of diverse background.

Conclusion

Headmasters as leaders and school instructional leaders need to play an important role in strengthening and strengthening school travel. In the context of developed countries, no students are left behind or dropped out and all students are entitled to equal knowledge. The main objective of pupils getting learning at school is in preparation for them to secure their future lives with high skills and knowledge. Instructional leadership is a leadership style practiced by headmaster in implementing KAK in schools in general. Although this study only investigates the headmaster's perception of the implementation of KAK in Sri Aman district, Sarawak only, the implications are important to teachers and district education officers as well as in ministry of education where this study can see how well the headmaster knowledge brings the direction of the school curriculum and effortsto re-purification implementation of KAK to be more cohesive and sustainable in the future.

The findings of the study found that apart from headmaster who play a role in the advancement and excellence of education in schools, teachers are also the most important agents in the success and formation of human capital who excel as well as produce highly knowledgeable students in school with the application of the elements of KBAT in PdPc. The use of ICT, the diversity of learning methods, the approaches in PdP should also be practiced as much as possible in order to produce a generation of IT literacy, competitiveness and skills' *The softskill*' needed is in line with the epoch of the developed world by 2030.

Reference

- Audrey, S. A., & Said, N. E. M. (2020). Dual Language Programme (DLP) in Bintulu District, Sarawak Primary Schools: Discovering Teachers' Perception toward Curriculum Change. *International Journal of New Technology and Research*, 6 (3): 35-40.
- Alonso, M. T., Barba-Sanchez, V., Lopez Bonal, M. T., & Macia, H. (2021). Two perspectives on the gender gap in computer engineering: From secondary school to higher education. *Sustainability (Switzerland)*, 13(18). <https://doi.org/10.3390/su131810445>
- Bati, T. B., & Workneh, A. W. (2021). Evaluating integrated use of information technologies in secondary schools of Ethiopia using design-reality gap analysis: A school-level study. *Electronic Journal of Information Systems in Developing Countries*, 87(1). <https://doi.org/10.1002/isd2.12148>
- Boneva, T., & Rauh, C. (2021). Socio-Economic Gaps in University Enrollment: The Role of Perceived Pecuniary and Non-Pecuniary Returns. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3106691>
- Delaney, J., & Devereux, P. J. (2021). It's Not Just for Boys! Understanding Gender Differences in Stem. *SSRN. Electronic Journal*. <https://doi.org/10.2139/ssrn.3390163>
- Krueger, A. B. (2003). The digital divide in educating African-American students and workers. In Cecilia Conrad and Margaret Simms (eds). *Education and training for the Black worker in the 21st century*. Washington: Center for Political and Economic Studies. <http://journalarticle.ukm.my/6261/1/1718-3247-1-SM.pdf> [17 April 2022]

- Olanrewaju, G. S., Adebayo, S. B., Omotosho, A. Y., & Olajide, C. F. (2021). Left behind? The effects of digital gaps on e-learning in rural secondary schools and remote communities across Nigeria during the COVID19 pandemic. *International Journal of Educational Research Open*, 2–2, 100092. <https://doi.org/10.1016/j.ijedro.2021.10009>
- Rubananthan, P., & Nasri, N. M. (2018). Level of Concern Over the Use of *i-Think* Across Curriculum in the Learning Process and Facilitation. *Malaysian Journal of Education*, 43(2):61-71.
- Pekkarinen, T. (2021). Gender Differences in Education. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2019442>
- Harmey, S., & Moss, G. (2021). Learning disruption or learning loss: using evidence from unplanned closures to inform returning to school after COVID-19.
- Skopek, J., & Passaretta, G. (2021). Socioeconomic Inequality in Children’s Achievement from Infancy to Adolescence: The Case of Germany. *Social Forces*, 100(1), 86–112. <https://doi.org/10.1093/sf/soaa093>
- Ministry of Education Malaysia. 2017. *Malaysian Education Quality Standard Wave 2 (Skpmg2)*, Putrajaya: Ministry of Education Malaysia.
- Wu, D., Zhou, C., Li, Y., & Chen, M. (2022). Factors associated with teachers’ competence to develop students’ information literacy: A multilevel approach. *Computers and Education*, 176. <https://doi.org/10.1016/j.compedu.2021.104360>
- Xu, S., Shonchoy, A. S., & Fujii, T. (2022). Assessing gender parity in intrahousehold allocation of educational resources: Evidence from Bangladesh. *World Development*, 151. <https://doi.org/10.1016/j.worlddev.2021.105730>
- Yu, J., McLellan, R., & Winter, L. (2021). Which Boys and Which Girls Are Falling Behind? Linking Adolescents’ Gender Role Profiles to Motivation, Engagement, and Achievement. *Journal of Youth and Adolescence*, 50(2), 336–352. <https://doi.org/10.1007/s10964-020-01293>