

## Article

# Curriculum And Pedagogy Reformation: A Policy in Response to Post-Covid Education

Paul John O. Delos Reyes, Krystelle Joie G. Ferrer, Natasha Liliane D. Loot, Pearl Angeli P. Santander\*, & Dharlaine Kate M. Sarabosquez

*Alabel National Science High School – Regional Science High school for Region XII, 9501, Maribulan, Alabel, Sarangani Province, Philippines*

**Article history:**

Received: 12<sup>th</sup> March 2021

Received in

revised form: 8<sup>th</sup> August 2021

Accepted: 11<sup>th</sup> August 2021

Available Online: October 2021

**Edited by:** Ts. Pratheep  
Sandrasaigaran

**Reviewed by:** Ts. Pratheep  
Sandrasaigaran

**Corresponding:**  
[pearlangelisantander28@gmail.com](mailto:pearlangelisantander28@gmail.com)

**Abstract:** During the 2020 global talent ranking, the Philippines ranked 48th and had the worst performance related to investments and development in the education sector. The Philippines' current education system follows the K to 12 Curriculum, and the Philippine Professional Standards for Teachers (PPST) acquired in developing pedagogies. There are five Pedagogical approaches in the K-12 Program: integrative, constructivist, inquiry-based, reflective, and collaborative, but then an evaluation suggests the ineffective implementation of the K to 12 Curriculum in integrating technological advancements within corresponding pedagogical processes in facilitating learning outcomes. To have sustainable and practical education, the researchers suggested integrating two existing clustered subjects to lessen workload and increase learners' comprehension of the concepts. Another strategy is integrating ICT into pedagogy and progressive learning strategies by undergoing intensive training programs and exposing the educators and learners to real-life gadgets and applications for better understanding and adaptation, with the government's help by increasing the budget for education. Lastly, Flipped Classroom utilizes quality education by taking student learning to the next level and transforming learning into a more dynamic and interactive learning space. The said suggestions emerge from existing theories and concepts which tackle the curriculum and pedagogy. With the current crisis, we cannot return to the world as it was before. This paper aims to ensure that a reformed education system will emerge in post COVID-19 education as a more flexible, equitable, and inclusive system. This study seeks to have a resilient education system in post COVID-19 education, which can be evident in estimated five years' time.

**Keywords:** Curriculum; Education; ICT, Pedagogy; Post COVID-19

## 1. Introduction

Education is what shapes the nation. It develops the society and the country's economy, the key for the world to move forward (Idris et al. 2021). According to Manila Bulletin, during the 2020 global talent ranking, the Philippines was ranked 48th, which shows drop in the education standard. The data presented that the Philippines had the worst performance related to investments and development of its education sector.

The current education system in the Philippines is following the K to 12 Curriculum. This framework has four pillars of education as set by UNESCO, each having its own support systems which addresses the needs of the learners as well as how this could be beneficial to the community.

In line with the K to 12 Curriculum, the Department of Education had reviewed the requirements so that the teachers can cater a quality education for the K to 12 programs. The Department of Education had adopted the Philippine Professional Standards for Teachers (PPST), which provides professional learning, competent practice, and practical engagement. Currently, this standard is operated through the teacher professional development programs, career progression, progress and teachers, and Learning Action Cells.

Philippines' education has already faced a lot of issues since before the pandemic started. In 2014, the National Achievement Test (NAT) and National Career Assessment Examination (NCAE) showed deterioration in education quality in the elementary and secondary levels. Next is the low budget allocated for the education sector that also contradicts to the Philippine Constitution. Third, according to the Department of Education; the drop-out rates among the primary school are 6.38% and a 7.82% for secondary school in the year 2012, which mostly coming from the low-income families. Besides, the UNESCO reports stated that there are over 1.4 million children were out-of-school youths. Moreover, the division in the society between the

rich and poor is apparent—lastly, the massive proportion of mismatch between training and actual jobs.

As the pandemic struck, a new normal has to be adopted, including in the education sector. Teachers and administrators revise and adapt course syllabi and requirements by shifting to remote teaching modalities in synchronous and asynchronous learning. However, the situation restricts both lecturers and learners from face-to-face classes, community engagements, internships, practicum activities, and other experiential learning methods. The pandemic showed the social, economic, political, and environmental realities and phenomena from different perspectives and the unmanageable conditions that the people have been experiencing.

With the problems presented, we aimed to reform the curriculum and pedagogy of the current education system into more sustainable by proposing and establishing improved curriculum pedagogies which can maximize the learner's and educators' learning resources. Moreover, we intend to create a practical framework to remediate academically challenged students and redevelop the existing K to 12 Curriculum Framework by adopting the flipped classroom setup. These objectives intend to resolve the current problems in the education system.

## 2. Existing data/ policy/ framework/ common practices

The Basic Education Act of 2013 or known as the K-12 Program (Figure 1), adds one year of preschool and two years of education of schooling in the 10-year primary education curriculum to produce students to be prepared for globalization instead of the conventional way of education, which prepares a student for higher education (Cabasag, 2014). With the use of spiral progression in strengthening Science and Math, the K-12 Program allows learners to acquire knowledge or skills according to their cognitive stages. (Quijano and Technical Working

Group on Curriculum, 2012 as cited in Cabansag, 2014). The K-12 Program aims to: (i) increase students' preparation for higher education; (ii) equip students with eligibility for entering domestic and overseas higher educational institutions; and (iii) facilitate students' immediate employability upon graduation (Almerino et al., 2020).

There are four clusters of subjects in the K-12 Curriculum which are: (i) Languages; (ii) Math and Science; (iii) Arts and Humanities; and (iv) Technology and Livelihood Education, that starts in kinder and continues to Grade 12. As the program uses spiral progression, there are no specific boundaries in the said subjects to indicate that the curriculum can cut across different subjects. The subjects grouped under Language are the Filipino and English. Meanwhile, under the Arts and Humanities are Edukasyon sa Pagpapakatao, Araling Panlipunan, Music, Arts, and Physical Education and Health (MAPEH). The remaining subjects are Science, Math, and Technology and Livelihood Education.

There are five Pedagogical approaches in the K-12 Program: integrative, constructivist, inquiry-based, reflective, and collaborative. The constructive approach promotes learners as active constructors of knowledge. The inquiry-based approach helps learners acquire critical thinking, problem-solving, and informed decision-making skills, which improves their ability to draw meaningful conclusions supported by evidence. A collaborative approach helps students to build camaraderie with each other. The reflective approach encourages learners to be self-evaluative, identify and explore their practices and underlying beliefs. The integrative approach helps the student to apply the concepts from books to real world, as learners should know that learning is not isolated from their lives (Guerta, 2012).

The K to 12 curricula has a balanced assessment program. This curriculum is diverse and accommodate to multifaceted academic performance analyses that rely primarily on the integration of observation and collection of diverse

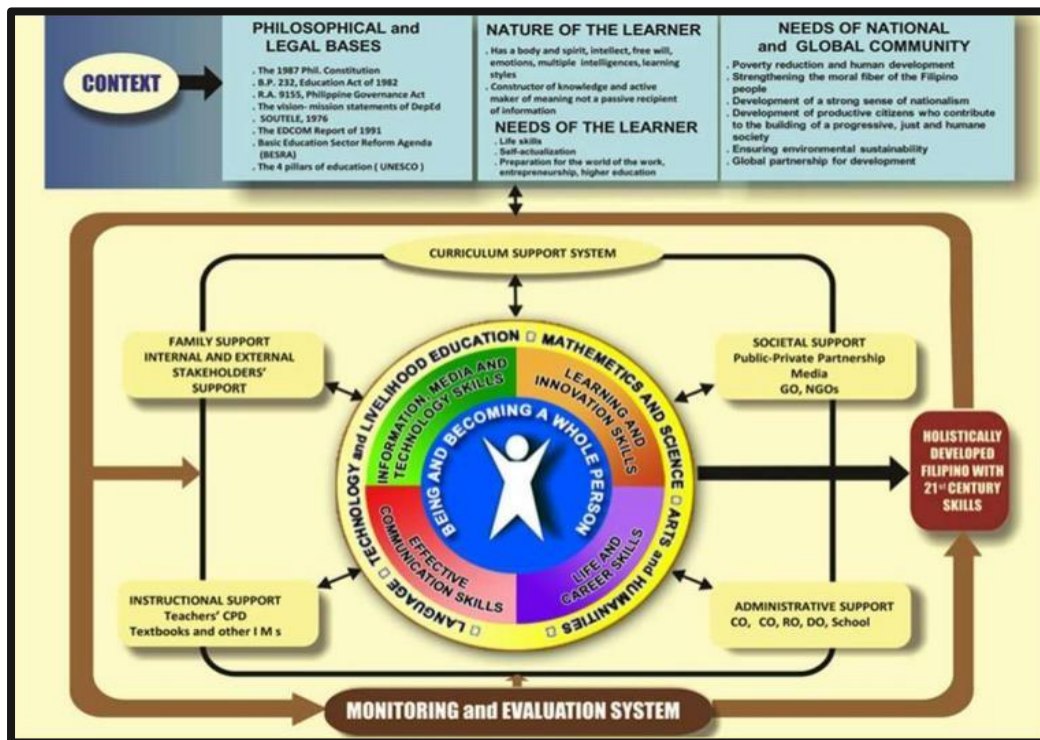


Figure 1. The K to 12 Philippine Basic Education Curriculum Framework

information that could aid the lapses of the current education system. Assessment as learning (Self-Assessment) helps students to build a standard for themselves and hold themselves responsible for their performance. Through this assessment, students can reflect on their strengths and weaknesses and how they can improve. Assessment FOR learning (Formative Assessment) helps the instructor evaluate the learners' knowledge of a new concept by conducting pre-assessment tests. Through this, the instructors can adapt to the students' awareness for a particular topic. Assessment OF learning (Summative Assessment) helps instructors to know their academic performance on a specific subjects or area. Balanced Assessments (Traditional and Authentic) emphasize skills development and understanding rather than the accumulated content.

### **3. Analysis of data, existing policy, framework, and the common practices in the Education Sector**

K to 12 Program is a Global Curriculum Guide characterized by its salient curriculum adopted universally from kindergarten to Senior High School, and College that emphasizes on contextualization and enhancement, spiral progression, mother tongue-based multilingual education, Senior High School, and College for Livelihood Readiness. Countries' have distinct models for pedagogy and curriculum guides in developing the K to 12 Program.

A standardized evaluation approach regarding the K to 12 System in the Philippines suggests ineffective implementation of the K to 12 Curriculum in technological advancements within the corresponding pedagogical processes and facilitation of the learning outcomes (Almerino, P. 2020). An ICT-based curriculum integrating technology offers a tool utilized in classrooms to improve teaching and learning quality Bruniges, 2003; Lefebvre, Deaudelin, & Loiselle, 2006; Bingimlas, 2009; Hamidi et al., 2011; Hussain et al., 2011). Though, ICT-Pedagogy Integration requires

alterations in the curriculum, infrastructure, and faculty, making implementation rather complex financially and structurally (Castillo, L. 2018). Similarly, ICT was also coordinated to Japan's K to 12 System specifically to its Education (ICT4E) Vision and Framework (Nuncio, R. 2020). Japan's prolonged projects and initiatives were centralized on curriculum design, promotion, and cultivation of information literacy, utilizing digital textbooks and online materials, upgrading online connectivity and network environment, and education technology training for teachers. Philippines and Japan both utilize the K to 12 Curriculum Framework, but some particular portions, such as the innovative pedagogy and ICT integration, were administered distinctively.

Despite so, technology integration is not the only implication of K to 12 Curriculum differences. American counterparts of the K to 12 Curriculum weigh equal importance to mathematics, science, history, English, humanities, and the arts. Japanese curriculum, however, specializes in mathematics, science and technology, Japanese culture and history, and moral values. This particular arrangement made Japanese education more sophisticated than the American education (Ellington, L. 2001).

Considering our reformation objectives, we can arrive at specific subjects for improvement through various evaluations of the program implementation modeled in different schemes. A post COVID-19 Response would require alterations in the pedagogical and curriculum framework, explicitly employing a flexible classroom set up with a simplified curriculum centralized for compulsory and intellectual subjects.

### **4. Summary of findings and recommendations for improvement**

The unparalleled education disruption brought by the COVID-19 Pandemic has dealt with significant educational implications. Recommendation outlined by the United Nations Exe-

culative summary briefs the suppression of transmission for inclusive re-opening of educational institutions as a complex challenge during the post COVID-19 Situation (United Nations, 2020). Administering online learning was the alternative route for educational institutions. However, the literature indicates some complications emerged from the conventional learning to online learning transition (Aboagye et al., 2020). Thus, opting solely for online learning was inefficient. However, a blended approach of conventional teaching and online teaching may serve as an appropriate resolution. With the analysis of the K-12 curriculum and pedagogy, the team suggests intensive reformation of previously established pedagogy and curriculum, specifically:

- Due to the clustered subjects only adaptable for conventional learning, the Department of Education needs to establish an interdisciplinary approach in the four clustered subjects. Arts and Humanities can be integrated with Language to lessen students' subject load and increase learners' comprehension of the concepts.
- Due to the teachers accustomed to traditional education strategies, the department needs to prepare instructors through intensive training that targets ICT-integrated pedagogy and progressive learning strategies.
- Due to the implementation of blended learning, the Department of Education must utilize the flipped classroom model as a dynamic and interactive pedagogical approach (The Flipped Learning Network, 2014).

##### **5. Improvement plan, options, and feasibility**

As the COVID-19 showcases flaws in our current education system, the researchers intend to reform the conventional pedagogy ready for post COVID-19 education. In line with this, the researchers offer a policy to integrate two existing clustered subjects: (1) Arts and Humanities and (2)

Language. Moreover, Languages' study is already part of the humanities (American Academy of Arts and Sciences, 2013). Establishing the said interdisciplinary approach will result in a simplified curriculum centralized for compulsory subjects.

According to the findings, the integration of technological advancements to the K to 12 system in the Philippines is ineffective. Learning styles and approaches are outdated to the current world we lived. The current education system exhibited to be traditional and conservative. Thus, incorporating technology would be challenging given that the world is already evolving in technological advancements constantly. ICT-integrated pedagogy requires alteration and modifications to be fully applied. Effective integration of ICT to pedagogy requires both teachers and students to adapt to new changes and adapt and comply with the present's advancements.

Integrating the Arts and Humanities and Language subjects proposed reducing the workload, maximizing the resources through subject collaboration, and establishing a practical learning style approach to both learners and educators. However, in-depth knowledge and understanding of this proposed program are needed to apply naturally. Thus, implementing this reformation requires professional teaching needs.

Most educators are concerned that they do not have the required skills to utilize technology in pedagogy, considering the senior faculty's generation gaps to the present. Furthermore, not all the students in the Philippines have the capacity and knowledge to use gadgets. Overlooking the unequal individual resources and exposures to gadgets to these students shows how technology illiterate they are. With this, the proper and right training for educators to enhance their digital competence is necessary. Moreover, students should have basic knowledge in integrating ICT into pedagogy and must expose themselves to real-life gadgets and applications for better understanding and adaptation.

Besides maximizing the resources, collaborating two subjects to one would enhance the students' critical skills and their ability to apply and adapt their learnings from the subject in the real world. However, not all students have the same adjusting and coping pace in learning. With this, thorough research on a practical approach is highly recommended depending on the affiliate's economic and geographical status.

Flipped classrooms promote quality education by taking student learning to the next level and transforming learning into a more dynamic and interactive learning space. According to the American University's School of Education (2020), lively discussion, hands-on activities, and peer mentoring are the flipped classroom hallmarks. Furthermore, it contains benefits such as better short-term student learning outcomes and creates more opportunities for students to learn at their own pace. However, challenges might also arise. Students with limited access to technology might encounter disadvantages, and teachers who utilized the conventional teaching method will adapt to new ways even though they are opposed. In line with this, Jeff Dunn has written a short piece on "The 6-step guide to flipping your classroom", which presented six easy steps for implementing the flipped classroom.

- i. Plan. Figure out which lesson, in particular, educators want to flip. Outline the key learning outcomes and a lesson plan.
- ii. Record. Instead of teaching this lesson in-person, make a video. A screencast works. Make sure it contains all the essential elements an educator would mention in the classroom.
- iii. Share. Send the video to respective students. Moreover, make it engaging and clear— further discussion of the video's content will pass in the class meeting.
- iv. Change. Now that students have viewed the lesson, they are prepared to go more in-depth than ever before.

- v. Group. An effective way to discuss the topic is to separate it into groups to perform a task. Write a poem, a play, make a video, and other ways.
- vi. Regroup. Get the class back together to share the individual group's work with everyone. Ask questions, dive more profound than ever before. After the six steps,
- vii. Review, Revise, and Repeat!

Effects of Curriculum Reformation and Pedagogy;

Advantages:

- i. More personalized learning. The proposed program will allow educators to go beyond the conventional learning approach to their learners. Learners would be able to digest and adapt learning at their own pace without feeling they are behind.
- ii. Focusing on progress over product. Institutions target to develop globally competitive learners. With this, the institution can easily track their students' improvements and develop the quality education that every student deserves.
- iii. Increasing the value of creativity and collaboration. Merging subjects to one would be an excellent opportunity to expose students to various learning activities there is. Application of these learnings through activities portrayed will make it easier to remember and apply in real-life scenarios. Hence, it would also let the learners comfortably engage with other learners.
- iv. Maximize and utilize present resources. Possible savings in financial and personal resources as the program controls the students' and educators' workload at the same time. The Department of Education will also benefit from this since the number of handouts produced, and workloads would decrease if the merging of subjects will be possible.
- v. Flexible time frame. Enabling the students to work at their own pace but with deadlines and targets.

vi. Address out-of-school youth concerns and dropouts. As observed, the current issue heightened the risk of school youth concerns and dropouts. With the increasing inequality to learning delivery methods, students involuntarily drop out because of unequal access.

Disadvantages:

- i. Notable change and adjustments. Change of teaching style and approach will lead both students and educators to adjust the big time from their usual teaching and learning modes. Hence, it might cause confusion and discomfort to the individuals involved in this reformation.
- ii. Potential displacement of educators. Maximizing the workloads would also mean maximizing the workforce. Specifically, many human resources might lose their jobs. Moreover, integrating ICT into pedagogy might result in some educators losing their motivation to work as they are not familiar with the new ways to be followed.
- iii. Inequalities in technology utilization. Students from low-income families will be facing insufficient reach of technology. Thus, the curriculum reformation and pedagogies learning opportunities decreasing due to the inequality access.

The worldwide crisis COVID-19 showcased the strengths and flaws of every education system. Unpreparedness and ill-adaptation to new modes of learning made it harder for teachers and students to adjust, especially in countries where conventional learning is practiced and lacks technological resources. In line with this, reformation of curriculum and pedagogy would greatly help improve the education system present. Application and adaptation can reach out to hundreds of out-of-school youths and might encourage comebacks from students who decided to drop out during these times. This reformation would also be beneficial and useful if the same or related crisis arises.

## 6. Conclusion

With the data presented, the researchers aim to reform the curriculum and pedagogy of the current education system by constructing a policy to integrate the two existing clustered subjects (Arts and Humanities, and Language). Moreover, integrating ICT into the current education system and officially incorporating the flipped classroom setup into the education system.

Much has been said and proposed in this curriculum reformation and pedagogy reformation for post-Covid 19 education. With the listed advantages of both educators and learners, there is no doubt that we need this change. However, the main concern here is to reach out and maximize the students' learning years and workloads. Thus, the main concern here is to provide alternative solutions to the negative side of this reformation. To fill in the gap in the learning of every Filipino student. Although the researchers' proposed alternatives are enough to supply enough training and orientation for the possible reformation, educators' and learners' welfare will be the topmost priority.

With the current crisis emerging, we cannot return to the world as it was before. This paper aims to ensure that a reformed education system will emerge in post COVID-19 education as a more flexible, equitable, and inclusive system. The policy constructed by the researchers might not be promptly applied as it needs proper communication and orientation with the people and groups involved; however, in 5 years, we might be able to see a positive change. In line with this, the researchers aim for a resilient education system in post COVID-19 education.

## 7. Acknowledgements

The creation of this policy paper is meaningful in our academic careers. We have been very fortunate to learn theories and concepts, which would have been impossible if we had not extensively studied the needed research. We are incredibly grateful to the



particular persons who gave their assistance and did not hesitate to extend a helping hand throughout our venture. We would have never succeeded in accomplishing this research study without the guidance of our advisers, panelists, friends, families, and from the Almighty God. First and foremost, to Sheila P. Butil, Ph. D. This policy paper would not have been possible without her guidance and encouragement. Despite her hectic schedule, she has been able to give suggestions, emplace corrections, and share her expertise for this research's success. We are also indebted to Mr. Maximo Cabanlit, principal, for allowing the researchers to participate in this meaningful competition and for his unending support that deeply encourages them. We would also like to thank the administration, faculty and staff, and the student body of Alabel National Science High School, especially the students and teachers who have been very considerate and supportive throughout the paper's completion. The researchers could not have come up with this paper if not for their encouragement and support. The researchers would also like to extend their gratitude and thanks to their loving and supportive parents: Mr. and Mrs. Delos Reyes, Mr. and Mrs. Santander, Mr. and Mrs. Loot, Mr. and Mrs. Ferrer, Mr. and Mrs. Sarabosquez, for their moral, emotional, and financial support, which helped broaden our knowledge about the study. It was our parents who guided us and extended their support and protection throughout the study. Finally, to our God Almighty, for his guidance, through the given wisdom and strength during the study's conceptualization and conduction. He gave us the courage to pursue the study no matter what circumstance we faced along the road.

## References

- Almerino, P. M., Ocampo, L. A., Abellana, D. P. M., Almerino, J. G. F., Mamites, I. O., Pinili, L. C., Tenerife, J. J. L., Sitoy, R. E., Abelgas, L. J., & Peteros, E. D. (2020). Evaluating the Academic Performance of K-12 Students in the Philippines: A Standardized Evaluation Approach. *Education Research International*, 2020. <https://doi.org/10.1155/2020/8877712>
- Cabansag, M. G. (2014). Impact Statements on the K-12 Science Program in the Enhanced Basic Education Curriculum in Provincial Schools. *Journal of Arts, Science & Commerce*, 29(2), 29–39. [www.researchersworld.com](http://www.researchersworld.com)
- Dean, E. (2013). Heart of the matter. In *Nursing management (Harrow, London, England: 1994)* (Vol. 20, Issue 7). <https://doi.org/10.7748/nm2013.11.20.7.40.s22>
- Department of Education. (2019). *Policy guidelines on the K to 12 basic Education Program* (pp. 1–153).
- DepEd. (2012). *Manual of The K to 12 Basic Education Program*. Don Bosco Press.
- Digest, T., Created, W. A. S., Eric, B. Y., & Resources, T. H. E. E. (2001). Japanese Education in Grades K-12. *ERIC Clearinghouse for Social Studies/Social Science Education Bloomington, ED458185 P*, 1–6.
- Ghavifekr, S., Razak, A., Ghani, M., Ran, N., Meixi, Y., & Tengyue, Z. (2014). ICT Integration in Education: Incorporation for Teaching & Learning Improvement. *Malaysian Online Journal of Educational Technology*, 2(2), 24–45.
- How Are K-12 Schools Different in Japan Compared to the US? (n.d.). <http://www.teachnology.com/teachers/employment/esl/japan/>
- Idris, F., Hassan, Z., Ya'acob, A., Gill, S. K., & Awal, N. A. M. (2012). The Role of Education in Shaping Youth's National Identity. *Procedia - Social and Behavioral Sciences*, 59, 443–450. <https://doi.org/10.1016/j.sbspro.2012.09.299>
- Issues Regarding the Educational System | K12 Academics. (n.d.). <https://www.k12academics.com/Education>



[Worldwide/Education in the Philippines/](#) issues-regarding-educational-system

K to 12 Basic Education Curriculum | Department of Education. (n.d.). <https://www.deped.gov.ph/k-to-12/about/k-to-12-basic-education-curriculum/>

Nuncio, R. v. (2020). Benchmarking ICT for education in Japan: Best practices, trends, challenges and lessons learned for Philippine ICT-based education & development. *AsiaPacific Social Science Review*, 20(2), 136–148.

PH moves a notch to 48th in global talent ranking, poor education cited – Manila Bulletin. (n.d.). <https://mb.com.ph/2020/11/12/ph-moves-a-notch-to-48th-in-global-talent-ranking-poor-education-cited/>

The 6-step guide to flipping your classroom | by Jeffrey Dunn | *Medium*. (n.d.). <https://medium.com/@jdunns4/the-6-step-guide-to-flipping-your-classroomd721878f85c1>

The Philippines – COVID-19 and Its Impact on Higher Education in the Philippines – HEAD Foundation. (n.d.). <https://headfoundation.org/HESB8/covid-19-and-its-impact-on-higher-education-in-the-philippines/>

Wieczorek, C. C. (2008). Comparative Analysis of Educational Systems of American and Japanese Schools: Views and Visions. *Educational Horizons*, 86(2), 99–111. <http://www.jstor.org/stable/42923715>