A CLOSER LOOK ON SPIRAL CURRICULUM IN TEACHING SCIENCE

by:
Danica L. Bello
Teacher I, Pagalanggang National High School

Students often complain about the education system that we have here in the Philippines, like any other country, the government is still trying to innovate the learning curriculum now and then using other countries as a model due to their efficiency. The K-12 program was first introduced as an experimental course that follows other educational systems from other Asian countries. It progressed until it officially became the new standard curriculum here in the Philippines. It has been argued for the past few years and it remained as one of the primary focus in our government.

The main reason why the K-12 basic program was launched was to establish a more competitive educational program that can par with other global standards of learning. As far as we know, many Filipino workers are currently employed abroad and most of them did not qualify for certain jobs even if they have a bachelor's degree in that specific field, probably because they didn't have the same training that was offered in that specific country. Now, with the help of the new curriculum, Filipino workers will have more chances of getting a job suitable to their chosen profession outside the country.

The main misconception about this new curriculum is that people often think that if they took certain units in Senior High School, they should not take them anymore in college which is not the case for the K-12 basic education curriculum since it uses a spiral approach in learning. The main difference between this program to the old curriculum is that it focuses on a holistic learning strategy for students which enables them to understand and go through the topic not only in one semester or school year since each year; the basic concepts progress into more advanced knowledge, this further enhances

the knowledge and skills of the students especially in Science which is one of the most technical subjects.

In the old curriculum, Science was often learned in this type order; during the primary years, the students were taught Earth Science, then Biology will be taken on the second year, then Chemistry when they reached a third-year level, and lastly Physics at their last year in high school. In a science curriculum, similar principles apply: foundational concepts are introduced and revisited periodically to reinforce understanding while new, more advanced topics are introduced. This iterative approach helps students retain previous knowledge while building upon it. For instance, in biology, students might first learn about basic cell structure and function, and then revisit these concepts when studying more complex topics like genetics or physiology. This cyclical learning process ensures a solid understanding of foundational principles while enabling students to tackle increasingly sophisticated material.

There are many types of methods in learning and one of them is called progressive learning, this method uses a student-centered approach of learning where the students begin to take over their learning progress and the teachers will just introduce the topic to be discussed and they just serve as a guide for the students to accomplish the learning objectives. This is what normally takes place in K-12-based learning, learning through experience and interaction which enables the students to not just learn the concepts but also practice their communication skills which is crucial if the students are planning work abroad after finishing their studies.

K-12 program has a lot of benefits for students as it provides a more challenging and efficient learning experience, however for some, it just adds to the burden of having to comply with the educational standard rather than learning them. Each student has their own style of learning and their intellectual capacity varies from one another, this is one thing that should be considered before giving an opinion on this subject. Perhaps the

K-12 program still has a long way to go before it can convince others of how well and efficient it is as the new curriculum.

In conclusion, the adoption of the K-12 program in the Philippines reflects an ongoing effort to enhance the country's educational system to meet global standards. By employing a spiral approach to learning, the curriculum aims to deepen students' understanding of core subjects like mathematics and science while preparing them for future academic and professional pursuits. While the K-12 program offers numerous advantages, including a more holistic learning experience and increased opportunities for Filipino workers abroad, it also faces challenges, such as ensuring that all students can effectively engage with the curriculum. Ultimately, the success of the K-12 program will depend on continued adaptation and improvement to meet the diverse needs of learners and demonstrate its effectiveness in the educational landscape.

References:

Dizon, R., Calbi, J., Cuyos, J., & Miranda, M. (2019), Perspectives on the Implementation of the K to 12 Program in the Philippines: A Research Review. (Retrieved from https://www.ijires.org/administrator/components/com_jresearch/files/publications/IJIRES_1638_FINAL.pdf)

Sanchez, E. A (2014). "Teaching mathematics for understanding: An analysis of lessons submitted by teachers seeking NBPTS certification", American Educational Research Journal, (Retrieved from http://aerj.aera.net, DOI: 10.3102/0002831208326559.)

The School in the Rose Valley (2022), Progressive Learning: Teaching Children How to Think. (Retrieved from https://www.theschoolinrosevalley.org/progressive-learning/)