

## **INTEGRATED SCHOOL FOR THE TWENTY-FIRST CENTURY EDUCATION**

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### **ABSTRACT**

Thammasat Secondary School (TSS), which in August 2017 only had 102 students, provides five experience group – Science and Mathematics (SM), - People and Society (PS), Health and Well-being (HW), Communication and Languages (CL), and - Appreciation of Arts (AA). This school started to operate “integrated school” for supporting the 21<sup>st</sup> century education. This entailed many changes in functioning of the school and the everyday work of the teachers and other school staff.

The school presented “Society of mutual respect and learning”, formed community schools which represent an example of highly flexible type of school based on the collaboration between different actors of the community. There is a partnership between a school and external partners. A community school is open to pupils, families and the wider community during and beyond the school day. It provides activities for talented groups, also is aimed at developing children’s and parents’ social and cognitive skills.

**Keywords:** Integrated School, Thammasat Secondary School (TSS), The 21st Century Education

### **INTRODUCTION**

The 2006 UNESCO conference Building Creative Competencies for the 21<sup>st</sup> Century had international participants and a global reach. In the 21<sup>st</sup> Century, humanity is facing severe difficulties at the societal, economic, and personal levels. Societally, we are struggling with greed manifested in financial instability, climate change, and personal privacy invasions, and with intolerance manifested in religious fundamentalism, racial crises, and political absolutism. Economically, globalization and innovation are rapidly changing our paradigms of business. On a personal level we are struggling with finding fulfilling employment opportunities and

achieving happiness. Technology's exponential growth is rapidly compounding the problems via automation and offshoring, which are producing social disruptions. Educational progress is falling behind the curve of technological progress, as it did during the Industrial Revolution, resulting in social pain. (Bialik, M., Bogan, M., Fadel, C., & Horvathova, M., 2015: ii) Since ancient times, the goal of education has been to cultivate confident and compassionate students who become successful learners, contribute to their communities, and serve society as ethical citizens. Character education is about the acquisition and strengthening of virtues (qualities), values (ideals and concepts), and the capacity to make wise choices for a well-rounded life and a thriving society. Facing the challenges of the 21st century requires a deliberate effort to cultivate in students personal growth and the ability to fulfill social and community responsibilities as global citizens.

### **INTEGRATED LEARNING IN 21ST CENTURY EDUCATION**

The consequences of education for society are mediated essentially through individuals affected by education and become deeper as the mediating agencies acquire collective possibilities over time. Thus education is in its profoundest essence an activity of the human spirit which can only be realized in a society of the future. Implicit in all forms of education except those which are mechanically ritualistic and repetitive are some integrative assumptions about the human personality, the nature of knowledge and human society.

The basic thinking behind present development models and education is that of expansionism-separatism. This thinking leads to the following (Singh, Raja Roy, 1991):

- Development means increase;
- Economic development means growth, separated from human, environmental and social well-being
- Education is separated from other affairs, run by the Ministry of Education and the school system separated from community and social affairs;
- Materials and mind are separated and development and education concentrate on materials;
- Education is separated into subject matters; ethics is a subject, thus separated from other subjects.

The new thinking has to be INTEGRATION. Thus:

- Economic, human, environmental and social wellbeing are integrated,
- Materials and mind are integrated in development;
- Science and religious values are integrated;

- Education is integral in all developments;
- Ethics education is not a separate subject but integral in all affairs;
- Thus learning is development;

The purpose of education and development is identical, i.e., to produce learning persons and a learning society.

In the 21st century learning, students may not master skills without the support of teachers who are well trained and supported in this type of instruction. 21st century professional development opportunities prepare educators to integrate 21st century skills into learning standards and classroom instruction, recommends that (Pacific Policy Research Center, 2010):

- Funds be allocated for professional development of 21st century skills and establishment of 21st Century Skills Teaching Academies.
- Higher education institutions be supported in identifying and disseminating the best practices for teaching and assessing 21st century skills.
- Higher education institutions be encouraged to ensure that all pre-service teachers graduate prepared to employ 21st century teaching and assessment strategies in their classrooms.

However, there are eleven guiding recommendations for integrated-learning in 21st century education are 1) develop intensive teacher professional development programs that focus intentionally on 21st century skills instruction, 2) integrate 21st century skills into teacher preparation and certification, 3) build capacity, 4) develop district leadership teams to infuse 21st century skills throughout the school district, 5) invest in information communications technologies (ICT), 6) develop professional learning communities around specific 21st century skills, 7) train administrators around how to lead 21st century skills initiatives, 8) offer professional development to state departments of education staff, 9) engage colleges of education for 21st century skills leadership, 10) integrate 21st century skills into teaching standards, and 11) leverage the reach of the Web to distribute resources.

The 21st century learning is both broad in a relevant way, as well as deep in judiciously chosen areas, where the three dimensions of Skills, Character and Metacognition are taught through the lens of traditional and modern knowledge, with interdisciplinary lenses. (Bialik, M., Bogan, M., Fadel, C., & Horvathova, M.,2015).

## **21ST CENTURY EDUCATION IN THAILAND**

Thailand's recent education reforms have placed increased importance, and responsibility, on

teachers and school leaders as agents of school change. The national curriculum first implemented in 2001 and revised in 2008 changed expectations of teachers from top-down lecturers in a culture of rote learning to facilitators who are mindful of each student's unique aptitudes and abilities. As with their counterparts worldwide, Thai teachers are expected to teach 21st century skills, such as analytical thinking, creativity, problem solving and teamwork, and encourage learning outside of the classroom. They need to continuously evaluate students' performance using diverse assessment techniques, and provide remedial support to struggling learners (OBEC, 2013). They must be knowledgeable about and use information and communication technology (ICT) to enhance learning, and be inclusive of students with special needs and from different backgrounds. They are expected to prepare students for active participation in the Association of Southeast Asian Nations (ASEAN) community and the competitive global marketplace, while also promoting Thai values and culture. The country's current education reforms focus on quality, equity, effectiveness and efficiency. Teachers and school leaders are instrumental to achieving these overarching goals, and they will have a good chance of success if Thailand makes efforts to strengthen teacher preparation, support continuing teacher development, enable teachers to focus on the classroom, enhance school leadership and more efficiently manage its school workforce. (OECD/UNESCO, 2016)

At present, Thailand's education system includes a variety of public and private schools. The Ministry of Education is by far the most important education provider, but ten other public bodies oversee their own institutions, which educate more than 1.1 million students. Many institutions offer primary and secondary education combined, and it is common to attend primary and lower secondary education "extended primary education" or lower and upper secondary education within a single school (UNESCO Bangkok, 2008). Students with special education needs are currently taught in either mainstream or dedicated facilities, but Thailand is making efforts to expand their opportunities to gain self-sufficiency and integrate into the community.

In 2016, because of Thailand 4.0, Thai education is called "education 4.0". The education is more than preparing or providing knowledge for people. It is to humanize people by instilling them with the habit of learning, morality, analytical skills, and the ability to live with others. These are the requirements of citizens in the 21st century. In addition, Thailand 4.0 also focuses on modernizing and developing Thailand to have higher revenue and prosperity, in order to escape from the middle-income trap using the innovation-based concepts and trading internationally for national development.

Consequently, education reform must be expedited in order to access Thailand 4.0 substantially thru the following actions (Ministry of Education, 2017a):

- The development of English language skills: The English language is the global language for communication, knowledge exchange, coordination, and commerce.
- The promotion of the teaching and learning of mathematics and science: This is a part of STEM Education. However, Thai students are required to maintain their national cultures while studying new and modern sciences also.
- The development of analytical skills: Another important issue found by the University of Cambridge is that of developing analytical thinking skills. While there is no separate subject for teaching analytical thinking skills, there must be in-depth studies carried out in each academic subject first.
- The adjustment of the teaching and learning curriculum: Currently there are eight groups of learning subjects. However, in the future, there may be specific subjects as before, with up-to-date contents relating to global situations. Only the necessary subjects will be selected, but they will focus on in-depth studies. There may be new subjects such as computing, to teach students about programs which controlling machines. As a result, students will be able to create innovations and keep up with technology and new sciences. Students will be able to learn about geography, which will be related to science and agriculture.
- The development and improvement of textbooks to meet the five-star standard: they will help by stimulating students' curiosity to learn more. Therefore, textbooks must really correspond to students' interests. Currently, textbook are undergoing standardization. Scores (stars) will be awarded to each textbook for specific criteria such as good production values, good illustrations, clear learning objectives and topics, means and examples to solve questions and problems, exercises and online link availability.
- The management of the quality of small-size schools under the "Good School Next Door" project: The most important issue is that local people in communities must accept and decide on this by themselves. The Ministry have been trying to enhance the quality of small-size schools, but this has not been successful because many parties do not agree with the outcome. However, the Ministry of Education is trying to inform parents that moving students to study at the Magnet Schools nearby is a better choice because they are better prepared. In addition, a supportive budget from the Office of the Basic Education Commission was given for developing the Magnet Schools to have physical characteristic and academic readiness to support the teachers and students from small-size schools.

However, UNESCO's latest report on Thailand's education system is a disappointment for the government and Thai people as a whole. However, the report can be seen as a genuine wake-up call for the government in terms of what it can do to improve our education system. The report encourages Thailand to focus on certain areas to prepare students for a fast-changing world.

Thailand can do so by conducting a thorough review of its curriculum; developing a holistic strategy to prepare teachers and school leaders to deliver education reform; and creating a comprehensive information and communications technology strategy to equip all of Thailand's students for the 21st century, with an emphasis on improving teachers' skills. Moreover, English fluency holds the key for Thai students to be able to compete internationally in an increasingly globalised world. Thailand can learn from Finland's education system, which was ranked second on the World Economic Forum's latest list. Three key components that contribute to Finland's educational success are: 1) a near absence of poverty; 2) students' fluency with languages. Most students know three languages: Finnish, Swedish and English; 3) the degree of respect and trust teachers are given in Finland. (Ministry of Education, 2017b)

### **THAILAND SECONDARY SCHOOL FOR THE 21ST CENTURY EDUCATION**

Thammasat Secondary School is located within Thammasat University, Rungsit Center next to Learning Sciences and Education faculty which is newly opened; only 2 class generations from the previous years. Many people have come to conclusion that Learning Sciences and Education faculty is focusing on producing teachers. Even though it was not quite wrong, it is actually focusing on producing personnel who can understand the meaning of learning and educating immersed from many fields. So, they don't need to become teachers. Since Learning Sciences and Education faculty's curriculum and Thammasat Secondary School's curriculum are related, students in school are expected to understand the meaning of learning and educating immersed from many fields. Therefore, the curriculum focusing on integration has occurred. (SIAM SCOPE MAGAZINE, 2018)

The school presented "Society of mutual respect and learning" and formed community schools which represent an example of highly flexible type of school based on the collaboration between different actors of the community. Community schools are an important incubator of school innovation. It is a partnership between a school and external partners – such as primary care services, voluntary and community organisations and local authorities – created to offer a wide range of opportunities for the development of pupils before, during and after school. A community school is open to pupils, families and the wider community during and beyond the school day. It provides services and activities for talented groups, also is aimed at developing children's and parents' social and cognitive skills.

The first generation of students were accepted last academic year so, at present, there are only 102 Matthayom 1 students in 4 classrooms and 30 teachers teaching these 5 groups of learning experience subjects as follows;

- Science and Mathematics (SM),

- People and Society (PS),
- Health and Well-being (HW),
- Communication and Languages (CL), and
- Appreciation of Arts (AA).

Each subject will be taught 1.5 hours per week. For students in Matthayom 1, the subject focused is Communication and Language. They will be taught these languages intensively (Thai, English and Chinese) as language is considered the basic tool to communicate. for Matthayom 2, Man and Society will be focused to develop social performances and for Matthayom 3, Science and Math will be focused to develop thinking system to be more abstract. During these early years, school's curriculum will be planned year by year because there is only one class generation. Year by year planning needs students' studying results evaluation in order to adjust the suitable curriculum for them. This means school must keep an eye on students very closely in order to bring back those results to create curriculum for the next coming year.

Test is not the word used here instead it is a week of Measurement and Evaluation 2 times per semester. Teachers for each subject will design the measurement not just multiple choices but, may be the measurement from the behaviors of such student: it is to see if his or her behaviors have been change positively or negatively. Tests might be occurred from time to time as suitable. For example, the evaluation for Geography and History will be giving the problem to the students and they will have to turn it to mapping before submitting it back. The interesting thing is "there is no grades 4 3 2 1 0 considered" but, the explanation the result of evaluation in order to notice the parents of their children's academic progress. However, if the students want their studying results for further academic purposes in the future, the school will be able to transfer those results into grads for them.

The schools are not a mere exam factory where students need to compete with each other to be number one, so there is no placement assessment in our school. There is only formative assessment in the school, conducted by teachers during the learning process to modify teaching and learning activities to improve student attainment. (Mala, D., 2017)

There will be two teachers teaching together in each class. It is obvious that before teaching, they need to discuss about the context so it goes into the same direction. So, teachers themselves need intensive preparation. The schedule here will be changed monthly to suit students' readiness and appropriateness, for example, at the beginning of the semester, People and Society will be focused so, the sub-subjects related to Society are more than other sub-subjects. At the middle of the term, the focus changes to Science, so the sub-subjects related to Society will be reduced.

Unlike many others, students at this school do not have to wear a uniform and line up in the morning to sing the national anthem and perform a Buddhist chant. They are taught under a new teaching method coincidentally similar to one used in Finland in which students get less homework and are focused more on hands-on, project-based learning.

The point of the no-uniform policy is to give students the ability to choose for themselves, and so choose what to be. It's part of becoming an adult. The school actually do have a uniform but it's just a simple white polo shirt. Students can still choose their own bottom halves. They have to wear the polo shirt two days a week, on Monday and Thursday, because there is a market in the school area and this way it's easy for us to separate our kids from others in the area for safety reasons. The students were also involved in designing the polo with teachers and parents.

The teachers here craft a new schedule for students every month as they emphasize phenomena-based project studies instead of traditional subjects. Teachers may also pick interesting topics from the newspaper or other media to discuss with the kids to encourage critical and independent thought.

Moreover, students are allowed to take part in establishing school rules together with their teachers such as should mobile phones be allowed in school and what kind of casual clothes are suitable for them.

The admission of the school, the students take a 'thinking skills' test, while the parents take an 'attitude exam' for making sure parents have the time to support their children. This means being involved with the school. The school only accepts students from Matthayom 1 [age 12-13]. They cannot start with us mid-way through their education. The students at the school are not asked to take extra courses at cram schools during the weekend because the school believes children should spend their free time on more creative activities. (Tun-atiruj, C., 2017)

The students start school at 8 am, finish at 3:30 pm, after which pupils have the chance to choose various after-school clubs, for example, social innovation club for developing social innovator sessions, where kids get to discuss social problems. The school let them name problems they have observed, then discuss their causes and come up with ideal solutions, and how to make that ideal situation a reality. By making their own decisions and fully being themselves, students can learn to live with each other's differences.

The social innovation at the school occurs at different levels: in the profile of learners, in teachers, in the infrastructure and in the content. However, schools under the pressure of societal changes modify their approach to education and pedagogy. The cases described address the reduction of social inequalities in alternative ways by reducing traditional concept of streaming,

focusing more closely on the students' needs and backgrounds, maintaining an integrated approach between the school and student environment, reinforcing interaction with the community to serve the 21<sup>st</sup> century education.

## **CONCLUSION**

Although, UNESCO reported Thai schools failing in education. It is quite clear that Thammasat Secondary School's "change step" wasn't an overnight process. The Finland systems cannot be copied to the Thai environment because Thai cultural/social/regional influential differences must be considered. Initiating this new method at the kindergarten level would increase the odds on good results. The path of researching the successful Thai schools, to distill and implement the significant positive results generating ingredients, is quite time-consuming, it would also make the intensive search for all kind of local cultural/social/regional influential differences, compulsory in the Finland approach, somewhat redundant.

Thammasat Secondary School ends that the goal of this learning and teaching is to develop students who will become people driving society in the future; the people who create innovation and new changes to society. This is considered the outstanding issue for both students and the curriculum as the school's teaching curriculum may create changes and spirit to Thai education field more or less.

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