

**International Race for “Quality” Education: Comparative Analysis of Exam-Based and Student-Centred Approaches to Education in South Korea and Colombia**

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# 1. Introduction

In the era of globalization, education has been elevated to a position of importance as it relates to both the economic and social agendas for development, enhancing national human capital for a productive workforce and social conditions of the populace at large (Sahlberg, 2010). The value placed upon education is exemplified by the series of international development goals (e.g., Millennium and Sustainable Development Goals), human rights treaties (e.g., Convention on the Rights of the Child) and the agendas and projects of international organizations such as the World Bank, UNESCO, and OECD. However, with increased global connections and ease of communication, the noticeable trend in the world's education reforms has been to 'race' for higher student performance rates on international assessments and standardized tests and for higher rankings of schools at national and international levels (Peters & Oliver, 2009; Carnoy, 2014). Researchers who are critical of the excessive focus on tests have examined the successes of alternative forms of education that deviate from traditional schooling – most of which are structured to provide active, participatory and flexible learning for students. Yet often these alternative approaches are generally incorporated in schools that have overwhelmingly targeted students with disruptive behaviours and learning disabilities (Foley & Pang, 2006).

Three issues have thus arisen: a) because of the movement towards exam-based education valuing efficiency and measurement, improvements in student performance on tests are often regarded as synonymous with improvements in the *quality* of education; b) nations of the South have generally attempted to emulate OECD countries that have consistently ranked comparatively high on aggregated international test scores and have paid limited attention to alternative forms of schooling; and, c) despite commonplace assumptions that aggregate test

scores tend to reflect the relative quality of national education systems, there is no clear consensus about the definition of educational ‘quality’.

This Major Research Paper (MRP) aims to critically examine these issues by comparing South Korea’s (henceforth, Korea) formal education system that focuses heavily on test-taking by means of high-stakes testing<sup>1</sup> and Colombia’s *Escuela Nueva (New School)* that has gained renown as a student-centred alternative to Colombia’s mainstream public education system. Specifically, exam-based education characterized by high-stakes testing consists of standardized curriculum and measurable outcomes, essentially revolving around students’ performance on various tests; and, student-centred rights-based education embraces progressive ideas of education such as flexible, differentiated curriculum that encompasses local realities, learning by ‘doing’ rather than the traditional transfer of knowledge, and an emphasis on nurturing creativity and genuine interest for learning among students. In this MRP I draw upon an ‘all-encompassing’ framework of ‘quality education’ that has integrated two perspectives of ‘quality’ - a rights-based framework put forward by Bivens et al. (2009) and a more economic framework commonly used by the OECD nations.

The MRP is outlined as follows: Chapter Two consists of a literature review exploring different perspectives of the goals of education - focusing upon exam-based and progressive forms of alternative education approaches – and on defining ‘quality’ of education. Chapter Three lays out the context of the two nations of interest – Korea and Colombia – and their education systems and models. Chapters Four and Five are comprised of the conceptual

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<sup>1</sup> Meaning with important consequences for students, teachers, schools, etc.

framework for this MRP which has integrated some of the most important goals of education in each of the two educational approaches in an attempt to conceptualise ‘educational quality’ for comparison as well as the methodology of the MRP. Chapter Six presents the findings from a synthesis of literature review to answer the following questions followed by discussion and conclusion:

1. To what extent have Korea’s exam-focused education system and Colombia’s student-centred Escuela Nueva model met the diverse set of goals of educational quality as illustrated by the conceptual framework of an ‘all-encompassing’ view of quality education? (Figure 3)
2. How can the successes and/or failures of each educational approach in relation to these diverse goals of educational quality be explained? . . . and what are the implications for policy makers and educational decision makers?

By comparatively examining two highly different education models that have been implemented for more than three decades, and differ in their perspectives of ‘quality education,’ this MRP aims to find out how the representative nations of the two approaches of education, with different foci in teaching and learning, perform against various goals of educational quality. It hopefully will shed light on the assessment of ‘quality’ as defined by economic and rights-based education frameworks in relation to two prominent approaches to education, and contribute to considerations of more holistic perspectives of educational quality.

## **2. Literature Review**

### **2.1 Perspectives on the Goals of Education**

With so many actors involved in the educational process, there has been a proliferation of different educational ‘goals’ rather than an agreement on a specific set of goals. For example, Labaree (1997) summarizes three different goals representing educational perspectives of the ‘citizen’, the ‘taxpayer’, and the ‘consumer’: “democratic equality (schools should focus on preparing citizens), social efficiency (they should focus on training workers), and social mobility (they should prepare individuals to compete for social positions)” (p.39). These are just a few. As education takes up pivotal position in all aspects of development in terms of individuals, society, and a nation’s economy, the educational goals and variables for measurement become contingent upon whether education is viewed as a public or private good, an economic or social good, and upon the standpoint of different actors involved – students, teachers, parents, community leaders, government officials etc. Considering the two nations of interest – Korea and Colombia – as well as their heavy national emphasis placed on education in the current context of globalization, two educational approaches have been chosen for examination: exam-based and student-centered education.

#### ***2.1.1 Globalization and High-Stakes Testing***

Over the last few decades, education has been powerfully affected by neoliberalism. Broadly meaning “the agenda of economic and social transformation under the sign of the free market,” neoliberalism has within its core assumption that all have the possibility for socio-economic mobility regardless of their sociocultural contexts when granted access to education (Connell, 2013, p.100). Therefore, it is no longer about leveling the playing field, and the rich having unfair advantages, but rather equality in access to education becomes the passage towards

global competition for high-skilled, high-wage employment in accordance with market needs. The spread of the resulting values of competition, individual achievement and productivity have infiltrated education systems globally. Such market-based views assume that schools exist to prepare workers for the global marketplace and that “productive” citizens of the future are those who currently perform well in literacy, mathematics and science which are easily assessed by standardized tests (Peters & Oliver, 2009). This shift towards productivity and efficiency has led to a greater focus in many countries to improve education by emphasizing these “core” subjects, common standards for teaching and learning, and measurable knowledge that can be compared across schools and nations (Carnoy, 2014). Sometimes referred to as the Global Educational Reform Movement (GERM), it consists of “measurable outcomes, higher test scores, better positions in school league tables, and thereby greater individualism” (Sahlberg, 2010, p.48). This has led to the proliferation of exam-based education systems with standardized curriculum and standardized high-stakes testing upon which student performance is measured. This is founded on the belief that “competition in the economy as a whole drives efficiency and improvement could be applied to schools as well, so that competition among schools would lead to better outcomes for students” (Sahlberg, 2010, p.51). There is likewise an assumption that high-stakes testing activates in students not only a desire to improve scores, but *also* a fear of failing (Ryan & Weinstein, 2009). The growing appeal of comparative international student tests such as The Programme for International Student Assessment (PISA) has fueled international competition for top rankings. Measuring and comparing school outcomes within and across countries has been supported by international organizations like the World Bank, the International Association for Evaluation of Educational Achievement (IAEEA), and the OECD which share an “explicit understanding that ‘better’ education can be measured and that better education translates

directly into higher economic and social productivity” (Carnoy, 2014, p.25). The recent international trend has been for nations to ‘learn’ from specific high-performing countries on the PISA test, thus indicating that international assessments drive much of the reform discussion (Carnoy, 2014; Sahlberg, 2016; Ryan & Weinstein, 2009).

Although exam-based education with high-stakes testing has become the dominant orientation of national school systems, its heavy emphasis on student performance in terms of test scores has been criticized as having created a “machine” bureaucracy that establishes conformity and control over schools, teachers and students alike, giving little attention to the *processes* of teaching and learning required to obtain high performance outcomes (Peters & Oliver, 2009, p.271). Critics point to flaws of testing that fail to assess higher-order thinking and problem-solving skills, and to the norm-referenced characteristics of standardized examinations which designate 50% of test-takers as failures (Peters & Oliver, 2009; Sahlberg, 2010). These critics oppose “normalizing” students and the underlying assumptions that their capacities and pace for learning are the same. They point to the negative consequences of such “normalization” within competitive educational environment, notably an indifference to student relationships, lack of interest in alternative ideas, and abandonment of those who cannot “keep up” (Sahlberg, 2016; Peters & Oliver, 2009; Rosenkvist, 2010). Critics likewise bemoan what Freire (1993) referred to as the “banking model” of education in which “the students are the depositories and the teacher is the depositor of information that they must “patiently receive, memorize and repeat” (p.53).

### ***2.1.2 “Progressive Education” and Alternative Rights-Based Education***

Increasingly, however, there has been growing opposition to the traditional ‘teacher-centred’, rote-learning focused education. In fact, there is a long tradition that draws upon the Progressive-Era educational movements of the 19<sup>th</sup> to 20<sup>th</sup> century, tracing back to the work of Locke and Rousseau whose ideas were theorized by Dewey and countless others dedicated to shifting the focus of education from the teachers to the students (Palm, 1940; Cremin, 1959). Specifically, progressive education carries the principles of freedom to develop naturally and ideas centered on genuine interest as the motivating influence, guidance as the function of the teacher, attention to individual growth, and co-operation between school and home for the pupils’ learning needs (Palm, 1940). These principles were elaborated by Dewey who brought about revolutionary changes in educational theory and practice. Dewey believed the children were social beings and called for a “school close to life, one that will send into society people able to understand it, to live intelligently as part of it, and to change it to suit their visions of the better life” (Cremin, 1959, p.168). A function of the school was to serve as a “laboratory” where children can conduct ‘experiments’ to accumulate different experiences from which they can make meaning and increase the ability to direct their subsequent experiences (Palm, 1940, p.447). Thus, Dewey denoted “progressive education” as education that is a “constant reconstruction of experience” (ibid., p.449).

Freire (1973) shared similar beliefs by denouncing the “traditional” model as inhibiting creative power and calling for education to strive for critical understanding through a problem-posing approach whereby pupils develop their “power to perceive critically *the way they exist* in the world” through dialogue, reflection and action (p.64). Such education is concerned with

issues of power and consists of *transforming* individuals through a process of “recognizing the structures of injustice and recognizing one’s own ability to redress those roots of injustice” (Bivens et al., 2009, p.100). Such progressive ideas are also mirrored in Ayers’ (1995) guidelines to ‘alternative education’: classrooms that look more like laboratories or workshops rather than assembly lines; classrooms providing relevant and vital everyday experiences, focusing on activity, experimentation, problem solving and surprise; students actively participating in classroom decision-making and forming authentic relationships with teachers; and schools working to develop a sense of agency and embeddedness in students to create an empathetic, open and responsible culture of learning.

Although there is nothing inherently wrong with testing and measurement, the proponents of alternative rights-based education believe that unless education stimulates genuine interest in learning among students and drastically reduces fixation on meeting strict external standards, students’ learning will too often be unproductive and school systems will fail to generate the “productive” citizens they purport to be developing for the global marketplace (Sahlberg, 2010; Bivens et al., 2009). Rather than adhering to “globally benchmarked standards” for teaching and learning to “enhance competitiveness of both individuals...and national economies” that has become prominent, they argue that what is needed in a globalized world is “personalization, creativity, and the ability to differentiate teaching and learning in schools to match the interests, curiosity, and passion of students” (Sahlberg, 2016, p.129). The alternative approach to education encourages active (as opposed to passive) student-centered learning (Farrell et al., 2017). Although characterized in many ways – inclusive education, transformative education, personalized learning, etc. —alternative education calls for a transformation in “traditional”

ways of teaching and learning with far greater attention to active learner-centred pedagogy with heavy involvement of parents and community (Watson, 2011; Peters & Oliver, 2009; Farrell et al., 2017).

Since the time of the progressive education movement, there have been many initiatives aimed at providing flexible learning that accommodates the needs and interests of learners. Recent examples such as the Met School and Enrichment Institute in the USA (Howe & Covell, 2013; Watson, 2011), the Hampshire Reform in the UK (Howe & Covell, 2013), the Learning Community Project in Mexico, and the Bangladesh Rural Advancement Committee's non-formal education program (Farrell et al., 2017) all come to mind. While each of these programs has displayed significant improvements in students' engagement and learning aptitudes (reflected in academic performances), and in attendance and graduation rates (Howe & Covell, 2013; Watson, 2011, Farrell et al., 2017), they have all been relatively isolated initiatives. Indeed, rather than emerging as instances of systemic educational reforms, in most cases alternative education programs are developed as a way to target and reclaim disruptive youth who are at-risk of failing or who are classified as disabled (Foley & Pang, 2006; Howe & Covell, 2013). Underlying this piecemeal type of approach are the difficulties associated with effecting fundamental change in mainstream school cultures largely because of disinterest among educational officials and program leaders for meaningful reform and because of longstanding pedagogical practices of teachers who are invariably concerned about the ultimate test results of their students (Howe & Covell, 2013). As Farrell et al. (2017) have argued:

Proposals for educational reform or change are seldom enacted. If enacted (whether via legislation, regulation, or experimental programs), they are seldom implemented well and widely. If implemented, they tend after a few years to fade away as the system slowly moves back to its normal state. If implemented well, widely, and sustainably, there is very little evidence of long-term and wide-scale impact on the primary mission of the schooling enterprise: enabling and enhancing the capacity of young people to learn deeply (p.62).

In summary, although there is no clear line drawn between the two approaches to education – those focused mainly on test scores and those generally defined as ‘student-centered’ – they carry two distinct concepts of ‘quality.’ While one is founded mainly on the perception that a competitive system, with teacher effectiveness and student performance assessed mainly by test results, serves as the basis of educational quality, the other adheres to the precept that knowledge does not emanate primarily from rote learning but rather through experiential student-centered learning (learning by doing) and that quality is assessed not just through test results, but as well from the holistic development that enables students to become well-rounded citizens. While there is ample research that compares the assumptions and indicators of these two fundamentally different approaches to education, there are relatively few studies that consider both approaches in relation to prevailing perspectives of educational ‘quality’.

## **2.2 Concept of Educational ‘Quality’**

The idea of educational ‘quality’ has been an important topic of discussion at the international level since the advent of human rights as an international preoccupation. Since World War II, numerous international treaties have highlighted education as a fundamental right of every human being. The Universal Declaration of Human Rights of 1948 stipulated that everyone is entitled to free compulsory elementary education and equally accessible secondary and vocational education (Article 26.1). It likewise decreed that education should aim towards the “full development of the human personality and . . . the strengthening of respect for human rights. . . It shall promote understanding, tolerance and friendship” (Article 26.2) (United Nations, 1948). The same tenets were echoed in Article 13 of the International Convention on Economic, Social and Cultural Rights in 1976 – the first legally binding treaty for the right to education

(United Nations, 1976). The UN Convention on the Rights of the Child (CRC) of 1989 – the most widely ratified international human rights treaty – not only recognizes the right to education in Article 28 but also adds a quality dimension in Article 29, specifying as a central purpose of education “holistic development of the full potential of the child (Article 29.1.a), including development of respect for human rights (Article 29.1.b), an enhanced sense of identity and affiliation (Article 29.1.c), and his/her socialization and interaction with others (Article 29.1.d)” (UNCRC, 2001). It further insists on the need for education to be “child-centred, child-friendly and empowering...by developing his/her skills, learning and other capacities, human dignity, self-esteem and self-confidence...beyond formal schooling” (UNCRC, 2001).

Despite references to educational quality in these various international accords, most international development efforts directed towards education have focused primarily on expanding coverage and access to education. This has largely been due to the demographic challenges of providing education for the ever-increasing numbers of the world’s children. This was evidenced in the second of the eight Millennium Development Goals (MDGs), launched in 2002, dedicated to achieving universal primary education by 2015 (United Nations, 2015). This singular focus on expansion, however, has not only drawn attention away from considerations of educational quality, but it has ironically led to an overall deterioration of educational quality in many countries. Although overall enrolment in countries of the South have reached 91 percent in 2015, up from 83 percent in 2000, new difficulties such as overcrowding, lack of resources, and continuing patterns of low achievement have resulted in many situations where children’s access to school has not translated into children’s learning in school (Bivens et al., 2009).

In light of growing concerns about declining educational quality in many regions of the world, the Sustainable Development Goals (SDGs) launched in 2016 have dedicated the fourth goal (out of 17 goals) and 10 specific targets towards worldwide improvements in the quality of educational systems (UNDP, 2016). Yet, the definition of ‘quality’ is ambiguous and therefore open to interpretation. With the spotlight turned towards the ‘quality imperative’, growing recognition of its multifaceted nature has led to differentiated definitions of ‘quality’. Some have argued that quality is exemplified by measurable proficiency in literacy and numeracy; others emphasize that it refers to education that is free of any type of discrimination and adheres to the development of the whole child; and still others observe that quality is defined by the outcome of students’ social mobility through education. In view of the extraordinary difficulty in establishing a consensual international definition of ‘quality education’, UNESCO’s Education for All Global Monitoring Report (2005) articulated two underlying principles of quality: “the first identifies learners’ cognitive development as the major explicit objective of all education systems...The second emphasizes education’s role in promoting values and attitudes of responsible citizenship and in nurturing creative and emotional development” (p.17). However, because the objectives of the second principle are admittedly more difficult to assess and compare across nations (UNESCO, 2005), quality has frequently been identified with cognitive development as measured by test results.

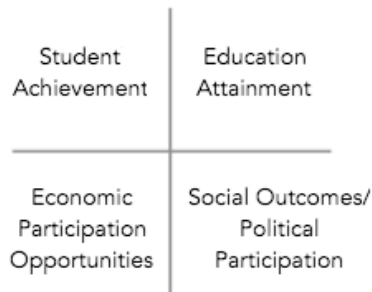
Underlying the challenge in arriving at a consensus concerning educational quality is the dichotomy between the two distinctive approaches to education –exam-based and student-centered – that I have discussed above. These two approaches to education adhere to two distinctive perspectives of educational quality.

### 2.2.1 Economistic Definition of Educational ‘Quality’: OECD Model

The economistic perspective of educational quality, the so-called OECD model, is derived from the prevailing way in which nations evaluate their education systems by placing considerable emphasis on “education as a productive system, in which inputs are transferred into outcomes” primarily for the enhancement of a nation’s economic growth (Scheerens, 2004, p.115). This is very much a quantitative approach to ‘quality’, grounded in indicators such as enrolment levels, examination results, and ultimately outcomes related to employment and productivity levels. Such indicators are relatively easy to compare internationally. A framework for quantitatively assessing educational quality has been produced by OECD (2018a) as outlined in Figure 1.

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Figure 1 Graphic description of quality education outcome indicators (OECD)



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(Source: OECD, 2018a; Scheerens, 2004)

The *upper right* quadrant of the graph refers to the level of education achieved. Indicators for this quadrant include student graduation rates, drop-out rates and repetition rates. The *upper left* quadrant reflects the student academic achievement on international assessments like PISA that are designed for international comparisons. The *lower left* quadrant is composed of

indicators that represent the post-schooling economic status of students. It signifies how education relates to subsequent labour market indicators such as rates of school leaver employment and incomes level (proxy measures of the economic benefits of education). The *lower right* quadrant alludes to civic engagement through indicators such as interpersonal trust and interest in politics (OECD, 2018a; Scheerens, 2004). These are all indicators associated directly or indirectly with the notion of educational quality.

### ***2.2.2 Rights-based Definition of Educational ‘Quality’: Transformative Education***

The rights-based paradigm of educational quality – which many alternative models of education strive for – focuses largely on the internal efficacy of education and holistic development of learners. This framework, proposed by Bivens et al. (2009), consists of a combination of a behaviouristic perspective of learners’ cognitive development and a humanist perspective concerning the social development of learners. Bivens et al. (2009) argue:

While not free from statistical assessment, there is a complementarity arising from the best of the behaviourist and humanist approaches that could provide space for more creative, student-focused pedagogies. Clearly this is valuable for all students, regardless of the context in which they live, but the question still remains as to whether this would be sufficient to address the deep and intransigent inequalities that are transmitted intergenerationally (p.100).

The framework proposed by these authors is in effect a transformative approach that aims to “stimulate key processes in human development and social change” and thereby enable children to gain a sense of identity and self-determination (Bivens et al., 2009, p.100). The framework is as shown in Figure 2:

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Figure 2 Graphic description of quality education with transformative dimensions



(Source: Bivens et al., 2009, p.105)

The *upper right* quadrant of the figure embodies the behaviorist perspective which focuses on the “core” elements of literacy and numeracy as foundations of cognitive development. The *upper left* quadrant focuses on learners’ personal growth through processes of creativity and freethinking. The *lower left* quadrant incorporates problem-solving skills, critical analysis, and reflection of the self and the larger society. Finally, the *lower right* quadrant focuses on outcomes such as citizenship and civic engagement outside the classroom. All elements are regarded as an empowering process that occurs simultaneously and is characterized by growth of knowledge, reflective and critical thinking, identity development, and concern for and action towards the wider society (Bivens et al., 2009).

Flaws exist in both these models of educational quality, however. The OECD model relies only on outcome indicators, ignoring the educational ‘process’ and the ‘progress’ made by the students while in school. In addition, the framework is almost fully statistics-based which can seem somewhat reductive when evaluations of an education system rely only on a series of

numbers and percentages at the national level. On the other hand, the transformative education model, while it considers the processual growth of the student – in terms of both the cognitive and social development – and includes many different types of skills obtained through schooling, efforts to measure such diverse skills become ambiguous. As well, the model gives no indication of what the outcomes are for the students after graduation. Furthermore, the transformative intent of equipping students to become drivers of social change in the long-term is ambiguous as it does not address the notion of ‘human capital development’ and post-school employment.

I now turn to examine the two contrasting models that have been applied in two different national contexts.

### **3. Contexts of the Two Contrasting Models: South Korea & Colombia**

#### **3.1 Exam-based Education in South Korea**

Korea has received a great deal of global attention due to its high level of equality in education and high academic performance achieved at primary and secondary education levels (So & Kang, 2014; Yoon & Järvinen, 2016). Its education system can be characterized by three traits: egalitarian educational policies, national standardized curriculum and the College Scholastic Ability Test (CSAT) (Byun et al., 2012; Jung, 2014; OECD, 2016a). Korean students are taught the same curricular content that is externally decided by the government at the same pace in similar learning environments *and* they are promoted at the same time from grade to grade with the same-age peers regardless of their academic abilities and whether they have attended public or private schools (Byun et al., 2012). The system revolves around preparing the students for the National College Admission Test – the CSAT – which has the power to

determine their future social status. Primary and secondary education is therefore characterized by emphasis on rote memorization, teacher-centric lecture format classes, low levels of in-class student participation, and an exam-driven learning culture (So & Kang, 2014; Byun et al., 2012).

Since Korea's rapid industrialization during the 1960s and 1970s, its education system has focused upon improving educational efficiency by 'optimizing' the transfer of knowledge through a detailed curriculum and prescribed modes of classroom teaching (Jung, 2014; McGuire, 2007). Influenced by its historical experiences, there has consequently been a strong connection between test scores and gaining social power and status, as well as long heritage of authoritative teachers and passive, submissive role of students (So & Kang, 2014; McGuire, 2007; Yoon & Järvinen, 2016). There is, therefore, strong national emphasis placed on admission to top universities and a belief that students must follow the guidance of their teachers in an unquestioning manner. Since high-stakes test scores largely determine students' transition into upper levels of education, the Korean education system focuses exclusively on test preparation and stakeholders are interested in "how students can learn more, and more efficiently, compared to their peers" (Jung, 2014, p. 54; see also Byun et al., 2012; OECD, 2016a).

Not surprisingly, prominent features of education in Korea are the exceptional levels of private spending on *shadow education* – supplementary educational activities outside formal schooling that are designed to improve a student's performance on tests – and the ubiquitous phenomenon of "cram schools" (*hagwon*) where elementary and secondary school students study late in the evening and on weekends. Both these features have exacerbated the competitive, high-pressure assessment environment for students and the culture of obsession centered on education,

commonly known as “education fever” (Byun et al, 2012, p.220; see also Jung, 2014; OECD, 2016a).

### **3.2 Student-centred Education in Colombia: The case of Escuela Nueva**

Colombia is an upper middle-income country that has shown significant progress in terms of economic development. Yet until recently, the country suffered a prolonged period of excessive violence brought about by an insurgent movement – Fuerzas Armadas Revolucionarias de Colombia (FARC)<sup>2</sup> and organized drug trafficking (Vega & Bajaj, 2016). By late 2016, the peace talks led to an end of civil war and concerted efforts to diminish the strength and organizational capacity of major Colombian drug cartels had been successful. Apart from, and despite, the turbulence Colombia has experienced, the country has also garnered interest from the field of education due to its long-standing, and wide range of, flexible non-formal education models that have been developed to serve disadvantaged groups and victims of conflict (OECD, 2016b). Among them, a model called Escuela Nueva (*New School*) has brought about the most significant changes to education in Colombia and has been recognized internationally as an innovative approach to education that has enhanced the quality of primary and secondary schools and addressed the educational needs of Colombia’s most marginalized children (Colbert, 2009).

Escuela Nueva (EN) model, promoted by a non-governmental organization called, Fundación Escuela Nueva (FEN), in partnership with the government, was formally developed in 1975 in Colombia by a teacher-led grassroots movement that was confronted with challenging

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<sup>2</sup> FARC emerged in 1965 as an insurgent, largely rural-based movement in opposition to a corrupt and self-serving national government (Vega & Bajaj, 2016).

educational conditions, mainly in remote rural areas, where multigrade classrooms, low levels of school enrolment, and chronic lack of pedagogical materials were commonplace (Luschei & Vega, 2015). The purpose of the EN model was to improve the quality, relevance and efficiency of education by rethinking the way children learn and by establishing pedagogical approaches that fostered flexible and personalized learning (FEN, n.d.).

Since its early days, EN has become widely known for a participatory and collaborative educational approach which combines classroom pedagogy (e.g., self-paced, self-instructional guides in multigrade classrooms) with forms of student government in each school and parent/community involvement (FEN, n.d.; Colbert, 2009). Reflecting many of progressive education, EN seeks to make education relevant to the daily lives of students by providing take-home activities, projects related to community needs and the involvement of family and community members in the teaching and learning processes. In terms of its pedagogical approach, EN stresses the following: a) active (as opposed to passive) learning characterized by problem solving, and student-centered inquiry with self-paced guides based on “dialogue” among individuals and small-groups; b) mutual narrator-listener relationships between teachers and students, with teachers assuming the role of facilitators of student learning; c) the replacement of age-based divisions with peer-to-peer teaching and flexible forms of assessment and advancements from one grade to another; d) inculcation of the skills of creativity, communication and collaboration by means of child-centred pedagogy and “learning corners” where students bring real artifacts to the classroom and thereby enliven the learning guide activities; and e) the establishment of school-based student government as a means to instill leadership and responsibility for longer-term goals of sustainable democracy, peace, and active

citizenship (Ayers, 1995; Freire, 1993; Luschei & Vega, 2015; FEN, n.d.; Colbert, 2009; World Economic Forum, 2017).

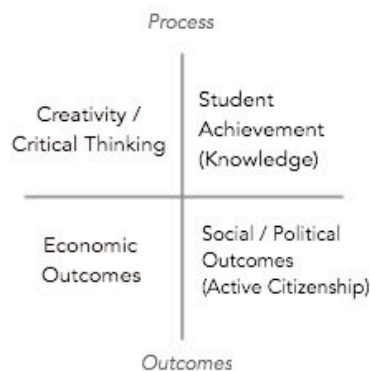
EN embodies many of the factors known to be effective in improving student achievement: parental involvement, flexibility, collaboration, effective teacher training and professional development opportunities etc. (Howe & Covell, 2013; OECD, 2012; Vega & Bajaj, 2016). EN represents a more systematic implementation of educational reforms that has embraced a broad student population, not just targeting a relatively small group of “at-risk” youth. Since its development, the model has been scaled up as an extensive national urban school system that has influenced national policy and been replicated internationally. Although recent statistics are scarce, available evidence indicate that within the first few years 3,000 mainly rural schools had adopted the EN model, and that in light of positive evaluation results, by 1985 the EN approach to schooling had become an integral feature of national educational policy and had expanded to 10,000 schools, and by 1992 to approximately 20,000 schools out of a total 34,000 primary schools (58%) in all 32 departments of Colombia (World Economic Forum, 2017; Colbert & Arboleda, 2016). By 2009, EN had impacted over 5 million children globally (Colbert & Arboleda, 2016). The EN model has continued to spread to urban schools and to secondary schools in Colombia, and has been adopted to varying degrees in 16 other countries (FEN, n.d.; Colbert & Arboleda, 2016; World Economic Forum, 2017). The most recent estimates available indicated that in 2014 approximately 8.6 million students were enrolled in a total of 52,000 public primary and secondary schools and 10,000 private schools in Colombia, the great majority of which have adopted much of the EN orientation to children’s education (World Economic Forum Report, 2017).

## 4. Conceptual Framework & Research Questions

To contribute to the studies of educational systems in Southern countries that have attempted to emulate the educational performances of high-achieving Northern countries in relation to the educational ‘quality’, this MRP compares education systems in Korea and Colombia with the aim of contributing to an understanding as to *how* such diverse Southern systems can be regarded as offering “good quality” education. In order to compare the two nations, I have conceptualized an integrated, ‘all-encompassing’ version of the two frameworks of educational ‘quality’ – the economic perspective and the rights-based perspective – that I shall refer to in answering my two research questions (repeated here):

1. To what extent have Korea’s exam-focused education system and Colombia’s student-centred Escuela Nueva model met the diverse set of goals of educational quality as illustrated by the conceptual framework of an ‘all-encompassing’ view of quality education? (Figure 3)
2. How can the successes and/or failures of each educational approach in relation to these diverse goals of educational quality be explained? . . . and what are the implications for policy makers and educational decision makers?

Figure 3 Graphic description of quality education



(Source: Bivens et al., 2009; OECD, 2018a; Scheerens, 2004)

Among a host of overlapping and conflicting notions of educational ‘quality’ and different educational approaches with no clear-cut division, these elements have been included in an attempt to objectively represent the goals of education encompassing both economic and rights-based views of education. Each element in the framework is defined as follows: The top quadrants signify the changes or improvements of students’ development throughout the schooling *process* and the bottom quadrants indicate the *outcomes* of education. The *upper right* quadrant refers to the learners’ cognitive development and performance on tests as outlined in both Bivens et al.’s (2009) and the OECD model: while the rights-based framework aims to assess qualitative as well as quantitative student learning, the economic framework is more focused on macro-level indicators that facilitate international comparisons. Indicators of student achievement also include completion/graduation rates. The *upper left* quadrant adheres to the role of schooling in fostering the growth of learners’ cognitive and social abilities in terms of creativity, critical analysis and reflection, and problem-solving. The *lower left* quadrant represents the subsequent socio-economic status of school leavers and their participation in the labour market as a proxy measure for the economic benefits derived from education. Indicators include rates of youth (un)employment, income levels and types of jobs attained. Finally, the *lower right* quadrant includes the interest and participation of students in the social and political realms of society in terms of their life satisfaction levels and ‘active citizenship’ as exemplified by participation in voting and other indicators of civic engagement. Education is deemed to have significant influence on the learners in all of the four elements – both the cognitive and social development of learners and their subsequent post-school economic and socio-political participation. This conceptual framework will therefore facilitate comparative analysis of

Korea's education system and the Colombian Escuela Nueva model of schooling in terms of the differentiated perspectives of educational quality.

There are limitations in examining an education system based on this integrated conceptual framework that are at the state or supra-state (OECD) level. Firstly, the elements contained in the framework do not represent exhaustive sets of educational goals. There is a number of educational goals that range from micro to macro levels; however, the above conceptual framework has been devised in an attempt to encompass goals that are frequently mentioned as important measures of 'quality' in the two educational perspectives. Secondly, as many international development projects experience, there often are gaps between policy rhetoric or educational frameworks from "above" and reality in the classrooms. As Pak Tee (2008) elaborates, although educational goals and aims always tend to be laudable, "the underlying dynamics of change and interaction among the various actors at different levels of the system often means that the rhetoric may be compromised in reality" (p. 600). While my conceptual framework is understandably non-exhaustive and may possibly over-simplify the dynamic nature of measuring 'educational quality', I nonetheless affirm that it yields useful information for the comparative purposes of this MRP.

## **5. Methodology**

To collect data relevant to answering the research questions, I have conducted a systematic literature review which entails locating "existing studies, select[ing] and evaluat[ing] contributions, analys[ing] and synthesiz[ing] data, and report[ing] the evidence in such a way

that allows reasonably clear conclusions to be reached about what is known and what is not known” (Dacombe, 2018, p.149). To overcome the shortfall of individual studies often capturing one part of a larger explanatory puzzle, literature review is an effective methodology to reduce bias and increase transparency of research findings (Dacombe, 2018). Specifically for educational research, research synthesis provides a valuable means to “address issues such as the effectiveness of educational policy and practice...[and] ‘what works’ and what does not” and also counter the common criticism that educational research often fails to contribute to policy-making by the non-cumulative nature of its findings (Davies, 2000, p.366).

A total of 50 literature and statistical reports have been collected for this MRP. The source of literature mainly consisted of online journal databases and search engines that provide broad citation searches including ProQuest, Google Scholar, Taylor and Francis, SpringerLink, as well as the uOttawa library catalogue. For the relevant educational and economic statistics required to compare Korea and Colombia, databases of international organizations (World Bank, OECD, UNESCO) and Korean national statistics database were used. Finally, the evaluation studies of the Escuela Nueva model included not only journal articles but also studies by international organizations (World Bank, UNESCO, UNICEF, OECD). I focused on searching for literature from 2000 to the present in order to summarise more up-to-date findings. However, four studies systematically evaluating the Escuela Nueva model published before 2000 have been included for their frequent citation and relevance. Though they may be outdated, they are substantive evaluations that are still cited in recent studies. While fully up-to-date statistics are helpful, they are not essential for the purposes of this MRP which is mainly concerned with

demonstrating the value in comparing different forms of education and the global tendency to pay overdue weight to standardized quantitative assessments.

The search keywords and the inclusion criteria are as shown in Table 1 and 2:

**Table 1: Search Keywords**

<b>Student Achievement</b>	Student academic achievement, performance, test scores, graduation or completion rate, transition rate, PISA
<b>Creativity/Critical Thinking</b>	Creativity, social skills, development, identity, self-esteem, problem solving, critical thinking & analysis
<b>Economic Outcome</b>	Alumni, graduates, economic participation, youth labour force participation rate, employment, income levels, youth unemployment rate
<b>Social/Political Outcome</b>	Political interest, participation, voting, electoral participation, community/civic engagement, life satisfaction
<b>Educational Approach &amp; Region</b>	Escuela Nueva*, South Korea, Korean formal education system, Colombia

*\*: The Escuela Nueva model has been nationalized in mid-1980s and internationalized in the late 90s; therefore, some studies analyzing the impact of the model in different contexts have also been included.*

**Table 2: Inclusion Criteria**

<b>Relevance</b>	Articles, chapters, reports must be assessing at least one of the elements contained in the quality education framework
<b>Sources</b>	Peer-reviewed journal articles Academic chapters or books Organizational impact studies or reports (NGOs) National/International statistics databases
<b>Age of literature</b>	Post 2000
<b>Design of studies</b>	Both quantitative and qualitative studies; Evaluation studies
<b>Geography</b>	South Korea and Colombia

## 6. Findings

### 6.1 Student Achievement (Knowledge)

As can be expected, students' academic performances or cognitive skills are well-documented and researched as the measure of success of an education system or model. In terms of educational attainment, the primary to secondary education transition rate of Korea remains at almost 100% since the 1980s (97.9% in 1983, 99.65% in 2015), while Colombia shows significant improvement throughout the three decades of Escuela Nueva implementation (54.5% in 1983, 98.2% in 2014) (World Bank, 2018a). The upper secondary school graduation rate of Korea is consistently the highest among the OECD nations with 94% in 2016 (Kwon et al., 2017) and Colombia seems to be steadily improving, at 77% in 2016, as indicated by Table 3.

*Table 3. Upper secondary graduation rate*

<b>Year</b>	<b>South Korea (%)</b>	<b>Colombia (%)</b>
<b>2013</b>	92.288	NA
<b>2014</b>	92.761	69.433
<b>2015</b>	93.033	NA
<b>2016</b>	94.341	77.057

Source: (OECD, 2018b)

Korea's egalitarian educational policies maintain a "single ladder system of schooling in order to ensure that every citizen can receive primary, secondary, and tertiary education" (Kwon et al., 2017, p.62). This is exemplified in the attainment indicators as well as the transition rates of primary to secondary education *and* from upper secondary to tertiary education as shown in Table 4, demonstrating the similar pace of student promotion on the basis of age.

**Table 4. Statistics of high school graduates and college entrants of Korea**

<b>Year</b>	<b>High school graduates</b>	<b>College entrants</b>	<b>Rate (%)</b>
<b>1980</b>	266,331	90,575	34.0
<b>1990</b>	487,772	230,121	47.2
<b>2005</b>	569,272	417,835	73.4
<b>2013</b>	631,197	446,474	70.7

Source: (Kwon et al., 2017, p.63)

As for aggregate indicators of student performance, recent scores on the PISA results are used for comparison as different nations refer to the data to support policy reforms aiming to enhance the quality of the school system (Kwon et al., 2017). As evidenced by Table 5, the absolute test scores of Korea remain at the top tier of participating nations, the latest scores being within the top ten for all subject areas of mathematics, science and reading. By comparison, Colombia seems to be lagging behind by significant differences in scores. However, when one examines the ‘progress’ of the two nations, an important difference can be witnessed. As illustrated by Table 6, the PISA scores of Korea are declining in all subject areas whereas the scores of Colombia are on the rise. OECD (2015b) reports the significant improvement Colombia has displayed:

Colombia’s mean performance increased 28 score points in science, 40 points in reading, and 20 points in math respectively, second, fourth and seventh largest improvement among the 52 education systems with comparable data. The improvement is even more remarkable given that the percentage of 15-year-olds in Colombia who are eligible to sit the PISA assessment – that is, those who are enrolled in a school at grade 7 or above – has increased from 60% to 75% between 2006 and 2015 (p.2).

The Colombian statistics are well-supported by 12 evaluation documents studying the cognitive outcomes of EN students. Most of them study the scores of two subjects - language and mathematics. The rationale behind the choice of the two subject areas is: with language, students construct and develop knowledge and learning, giving meaning to their experiences, and build the basis of the ability to reason and critical thinking; and mathematics contributes to logical

reasoning and the capacity to solve problems (Casassus et al., 2000). Nine studies report increased achievement in Spanish and mathematics for third and fifth graders in schools classified as EN schools as compared to traditional school students in cross-sectional and longitudinal studies (Psacharopoulos et al., 1993; Schiefelbein, 1993; McEwan, 1998, 2008; Hammler, 2017, 2018; Saito, n.d.) and in schools that have adopted the EN model internationally (USAID, 2003; Parandekar et al., 2017; Le, 2018). Also in a comparative study of Latin America by UNESCO, Casassus et al. (2000) found that rural schools in Colombia where the EN model was initially implemented – as the only exception – had higher outcomes than those of urban schools. Generally, the impact is stronger for younger grades in all subject areas and for schools that have properly implemented the model (Psacharopoulos et al., 1993; McEwan, 1998, 2008; Hammler, 2017, 2018; Parandekar et al., 2017; Le, 2018).

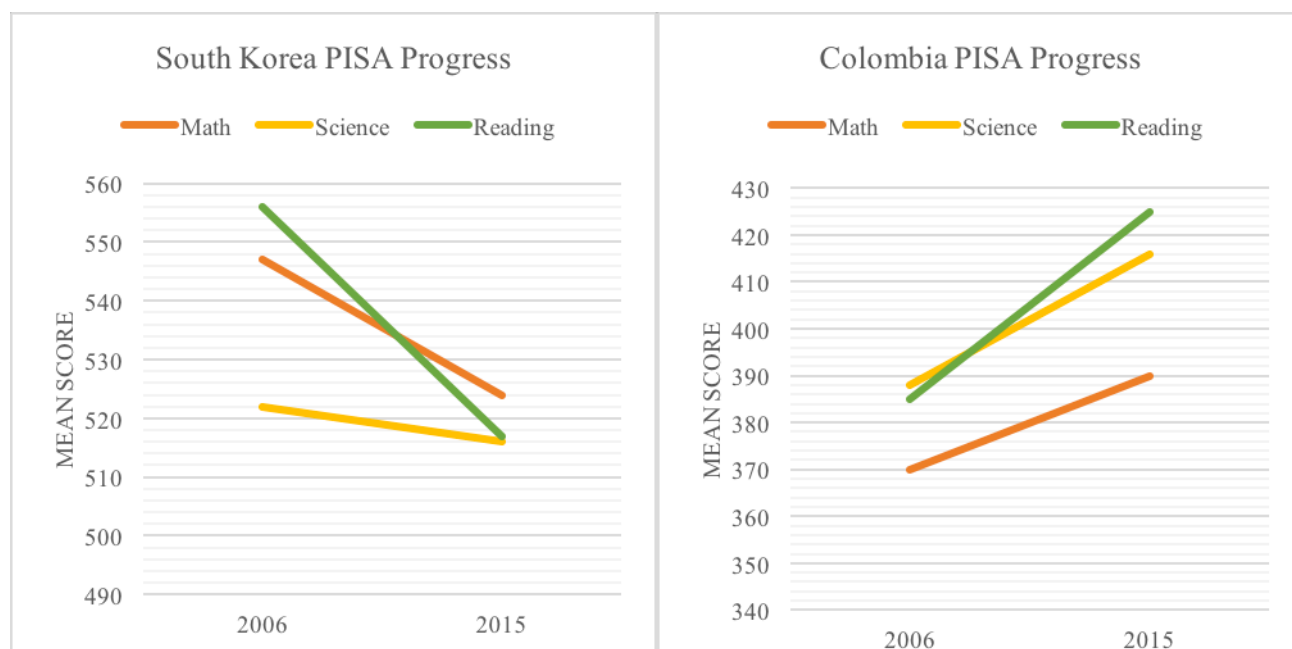
Schiefelbein (1993) attributes the achievement to the activities included in the learning objectives being relevant to the needs of a child and the community and Baessa et al. (2002) point to the small group participation and democratic behavior in correlation with reading abilities.

***Table 5. PISA performance of Korea and Colombia***

Year	South Korea (Mean score)			Colombia		
	<i>Math</i>	<i>Science</i>	<i>Reading</i>	<i>Math</i>	<i>Science</i>	<i>Reading</i>
<b>2006</b>	547 (2 <sup>nd</sup> )	522 (8 <sup>th</sup> )	556 (1 <sup>st</sup> )	370	388	385
<b>2009</b>	546	538	539	381	402	413
<b>2012</b>	554	538	536	376	399	403
<b>2015</b>	524 (6 <sup>th</sup> )	516 (9 <sup>th</sup> )	517 (7 <sup>th</sup> )	390	416	425

Source: (OECD, 2015a)

**Table 6. Visual Representation of PISA performance of Korea and Colombia**



Source: (OECD, 2015a)

## 6.2 Creativity & Critical Thinking

As pointed out by many theorists who have examined the critical difference between the two approaches to education (Sahlberg, 2016; Peters & Oliver, 2009), higher-order thinking including creativity, critical thinking and problem-solving *and* social abilities or relationships have been extensively researched for both Korean education system and Escuela Nueva model. Creativity, which is the most researched learning outcome, is generally operationalized and measured by observing originality, free expression, flexibility and fluidity (Psacharopoulos et al., 1993; Baessa et al., 2002; USAID, 2003; Parandekar et al., 2017; Lee et al., 2015; Ivancovsky et al., 2018). Critical thinking and analysis are less studied as they tend to be difficult to measure; nonetheless, they have been operationalized as skills such as identifying assumptions behind an argument, making references from available data, drawing conclusions from the information provided and evaluating the credibility of a statement and its source (Norenzayan et al., 2002).

Social skills primarily relate to peer-to-peer and teacher-to-pupil relations and cooperating with one another (Parandekar et al., 2017; Yoon & Järvinen, 2016).

For Korean students, 12 studies suggest that the high-stakes testing education system, which has been reduced to “preparation for and taking of multiple choice exams” (McGuire, 2007, p.225), has stifled creativity, critical thinking, *and* development of meaningful relationships between peers and with teachers. What is significant about these findings is that they are derived from different fields of study such as psychosocial studies (Kim, 2005, 2009), educational pedagogical studies (McGuire, 2007), neuroscientific studies (Ivancovsky et al., 2018), and cognitive science (Norenzayan et al., 2002), all consisting of various methodologies – scientific experiments, interviews with the students, ethnography, surveys etc.

The consistent finding is that Korean culture that values conformity, obedience and admission to top universities, intertwined with the way the education system is structured around the CSAT test-taking has created an educational environment that places little value on nurturing creativity and learning through interacting, and instead, instills “extrinsic motivation” to do well in school among students – a motivation originating from social pressure and values – which is detrimental to creativity (Kim, 2005, 2009; McGuire, 2007; Zhao, 2012; Kwon et al., 2017). In fact, as one study has shown, Korean students have a very low level of interest in science and mathematics even though their achievements in these fields are at the top (Jang & Kim, 2004). Moreover, Korean students have reported feeling uncomfortable in creating new things and in fact are given very few opportunities to demonstrate their critical and creative abilities as they are mostly assessed by their ability to learn and memorize imparted knowledge. One critical

strategy for higher Korean scholastic achievement was stated to be “writing down, verbatim, everything an instructor said during class” (Lee et al., 2015, p.142; see also Kim, 2005). This is also confirmed by Ivancovsky et al. (2018) who observed activity of an area in the brain called left inferior frontal gyrus, associated with originality: “Lower originality is associated with higher activity in the left inferior frontal gyrus, which was significantly more activated among Korean students” than their comparison group (p.13).

As for the critical thinking and analysis, studies suggest that the structure of the Korean education system that teaches students to memorize large blocks of knowledge has cultivated within the students a view that “being acquiescent and non-critical are positive characteristics” (Lee et al., 2015, p.136; see also Norenzayan et al., 2002; Kwon et al., 2017; Byun et al., 2012). In contrast, being inquisitive and critiquing teachers are considered to be “morally immature” by the students and critical thinking is negatively correlated to one’s grades. Students are not taught to think critically about what they learn or about what is happening around the world – controversial social issues are considered “political” and thus “superfluous” and “irrelevant” to their studies (Kwon et al., 2017, p.209; see also Lee et al., 2015). Related to this finding, in an experimental study, European American and Korean students were presented with a set of arguments and asked to evaluate whether the conclusion followed logically from the premises. When faced with a conclusion that logically followed the arguments *but* was intuitively unbelievable, Korean students tended to make more mistakes in judging the conclusion as invalid than the American students, indicating that the Korean students relied more on their own experience but less on formal logical rules in deductive reasoning used by their American counterparts (Norenzayan et al., 2002; Lun et al., 2010).

Finally, Korean students have shown one of the lowest rates of “positive perceptions in regards to making friends at school” and below average scores of teacher-student relations of OECD nations (Yoon & Järvinen, 2016, p.438; see also Kwon et al., 2017; Kwon et al., 2017; So & Kang, 2014). Researchers attribute the “impersonal and inhumane relations” to severe academic competition faced by Korean students who generally prefer to study individually and question the benefits they might gain from collaborative learning processes (Kwon et al., 2017, p.209; see also Yoon & Järvinen, 2016). Teachers have felt overworked with excessive administrative work and students’ extra hours of study after school have added onto the lack of time and energy for creation of meaningful relationships (Yoon & Järvinen, 2016; So & Kang, 2014). Consequently, large discrepancies between the degree of the contribution from the high school education and the degree of perceived importance by students have been observed in “communicating with different people” as well as “skills to deal with customers” (Jang & Kim, 2004, p.698).

In summary, the Korean education system can be seen as producing individuals with “high scores but low skills” (Chung & Lee, 2017, p.155) as supported by the following study consisting of interviews of students who have undergone the transition from high school to higher education and to work. Students assessed different areas of competency as important in their lives, giving the highest values to cooperation skills, verbal communication skills and creative problem solving skills which were the very skills reported to be lacking in the education system (Jang & Kim, 2004).

On the other hand, stimulating children's creativity through active learning and exploration has been one of the main principles of the EN model. EN Students have relative freedom when it comes to choosing which subject to work on, what to read and write, how to present what they have learned and how to relate the subject matter to the community they live in (Colbert, 2009; McEwan, 1998). Therefore, the students of EN throughout different time periods tend to show higher mean scores of creativity compared with control groups – often students from traditional schools in both rural and urban areas not classified as EN (Psacharopoulos et al., 1993; Schiefelbein, 1993; McEwan, 1998; USAID, 2003; Le, 2018; Saito, n.d.). Based on the evaluation documents of EN, the self-perception of creativity level reported by the students has shown smaller yet still significant improvements (Psacharopoulos et al., 1993) when compared to the perception of teachers and parents who observed the students' significant increase in engagement, creativity, expression through the freedom they practice in the curriculum, various learning activities, and exploration outside classroom (Shiefelbein, 1993; McEwan, 1998; USAID, 2003, Le, 2018).

While there exists less assessment and evaluation of EN students' critical thinking and analysis, four studies have examined the abilities of students to think critically and to analyze different aspects of their social environment. One study observed the process of "self-evaluation and hetero-evaluation" in an EN school, where pupils evaluate their own work based on self-reflection which is then followed by a discussion with the teacher evaluating the work together; students were seen to portray confidence in presenting and communicating their work and views (Oswald & Moriarty, 2009, p.21). Further example is provided by Oswald and Moriarty (2009) who followed students conducting a school project – an investigation of their community's issue

of coffee growers abandoning the business and proposing a solution to return to the business. Another study by Martins (2017) has found through student questionnaires that EN students answered positively to statements signifying critical thinking such as “I analyse whether what I read, hear, or see is true” (p.80). Problem-solving has also been emphasized in the model, as well as observed within the activities and small-group work which dominate the curriculum. EN students frequently had to debate an issue, come up with solutions cooperatively and articulate reasons for their solutions (Baessa et al., 2002; Forero-Pineda et al., 2006).

Finally, four studies have evaluated the social skills of EN students, all of which demonstrate meaningful progress in the formation and maintenance of relationships with peers and teachers, as well as in higher social skills as compared to the control groups consisting of traditional school student (USAID, 1994, 2003; Parandekar et al., 2017; Vega & Bajaj, 2016). Two substantive longitudinal studies observing the students’ behavior have been conducted by USAID (1994) and Parandekar et al. (2017). Using existing data from the Improving Educational Quality study, which had been evaluating EN for several years, the USAID (1994) study reported significantly increased positive social behavior in terms of taking turns, expressing own opinions and listening to others, giving positive feedback, working together and effectively leading others in students as early as Grade One. A more up-to-date study by Parandekar et al. (2017) assessed non-cognitive abilities of students in EN schools over three years, from Grades Three to Five. Social skills were operationalized as persuasiveness, defending one’s own point of views, proactively obtaining help and providing help, sharing objects, getting along, expressing ideas clearly, and being sensitive to emotional needs of others. Through the combination of participant

observation and parental reports, the growth of the children's skills has been stated to be better than those of the control group.

However, one study showed contrasting findings: Le (2018) suggests that the culture of the context may become a barrier when the model is adapted in a different country, such as in Vietnam where the culture of heavily relying on textbooks resonated in the EN schools where children were observed doing rote tasks without fully understanding the materials and in observations of uncritical "problem solving" practices where "students were like a photocopy machine who only knew to fill in the blanks based on the instructions in the textbooks" (Le, 2018, p.13). As such, the level of implementation may be "a key to understanding differences between the potential represented by the Escuela Nueva program versus the results that it delivers in reality" (Bianchin, 2011, p.53; see also Hammler, 2017, 2018). Nonetheless, Hammler (2018) confirms that by using a program implementation index to study the impact of the EN school model on learning outcomes by the level of implementation, EN program effect increases dramatically when properly implemented.

### **6.3 Economic Outcomes**

Despite the profound interest in the economic productivity outcome derived from education by the economic perspective of 'quality,' micro-level statistics about the school leavers in both Korea and Colombia are rather scant. Only national statistics through international databases and a few research studies about national student populations were available for analysis. As mentioned above, economic outcomes refer to the subsequent economic activities of school leavers – such as labour market participation rates, socio-economic status, and income levels – as proxy measures of the economic benefits derived from education.

In Korea, the labour force participation rate for the ages of fifteen and up was 62.6% and youth unemployment rate was 10.5% in 2016 (Table 7) (World Bank, 2018b). In comparison, Colombia had a higher labour force participation rate of 70.3% and youth unemployment rate of 17.2% in 2016 (ibid.). The types of jobs attained are only presented by the broad three sectors of agriculture, services, and industry as illustrated by Table 7. The services sector dominates for employment in both nations, followed by industry and then the agriculture sectors. As shown, the unemployment rate of youth for Korea is slowly rising, while that of Colombia is decreasing over time. To put this into perspective, the youth unemployment rate of countries in similar geographic regions and similar income levels are given for comparison: the high-income nations of Japan and Hong Kong Special Administrative Region of China had youth unemployment rates of 5.1% and 8.6% respectively in 2016, signifying the relatively high unemployment rate of Korea. Upper-middle-income countries in Latin America - Costa Rica and Brazil - had rates of 23.4% and 27.2% respectively in 2016 which suggests a significant improvement of Colombia in the same hemisphere (World Bank, 2018b).

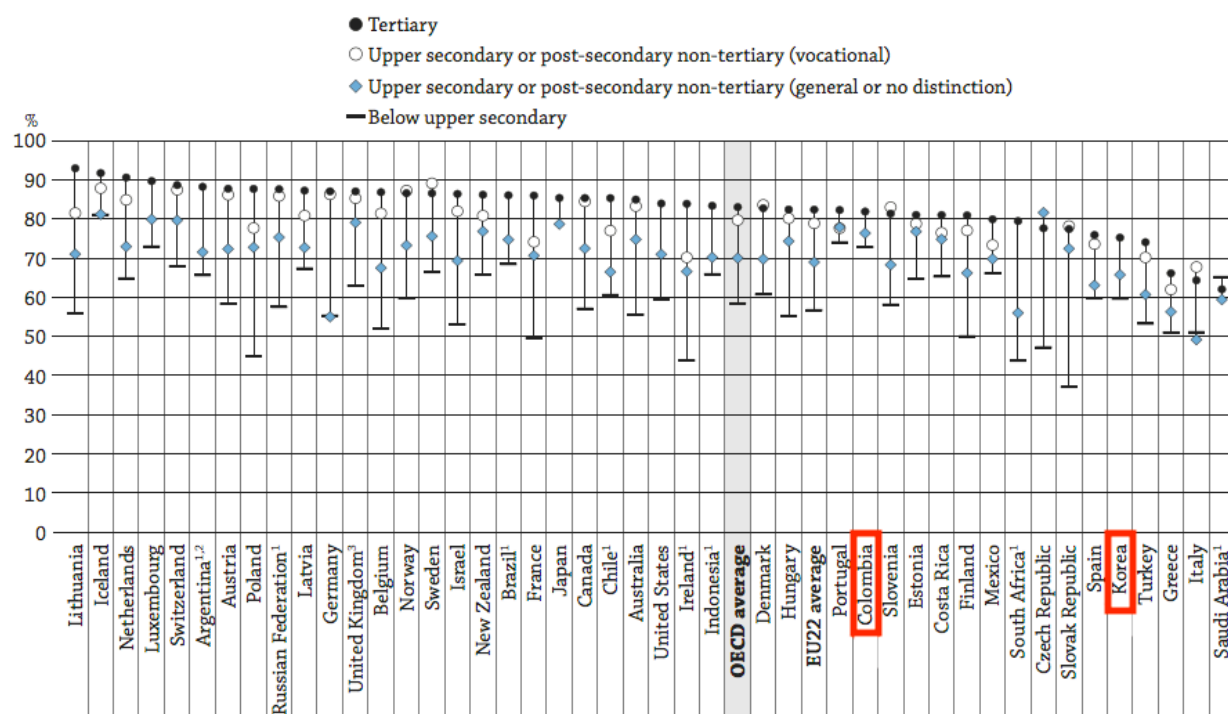
**Table 7. Youth unemployment rate and employment by sectors**

<b>South Korea</b>	2010	2013	2016
Unemployment, youth total (% of total labor force ages 15-24) (modeled ILO estimate)	9.7	9.2	10.5
Employment in agriculture (% of total employment) (modeled ILO estimate)	6.6	6.1	4.9
Employment in services (% of total employment) (modeled ILO estimate)	68.5	69.5	70.2
Employment in industry (% of total employment) (modeled ILO estimate)	24.9	24.4	24.9
<b>Colombia</b>	2010	2013	2016
Unemployment, youth total (% of total labor force ages 15-24) (modeled ILO estimate)	21.8	18.1	17.2
Employment in agriculture (% of total employment) (modeled ILO estimate)	18.3	16.6	16.1
Employment in services (% of total employment) (modeled ILO estimate)	62.1	63.8	64.6
Employment in industry (% of total employment) (modeled ILO estimate)	19.5	19.5	19.3

Source: (World Bank, 2018b)

The *employment* rates of the next age cohort (25 to 34) – stages at which young adults are presumed to be part of the working population – by educational attainment show that compared to other OECD and partner countries, both Korea and Colombia have lower employment rates. However, it is interesting to see that Korea in general has lower employment rates than Colombia throughout all education levels (Table 8) (OECD, 2017a).

**Table 8. Employment rates of 25-34 year-olds, by educational attainment (2016)**



**Note:** The label upper secondary or post-secondary non-tertiary (general or no distinction) refers to “general” for countries with a value for “vocational” and to “no distinction” for the others.  
Source: (OECD, 2017a)

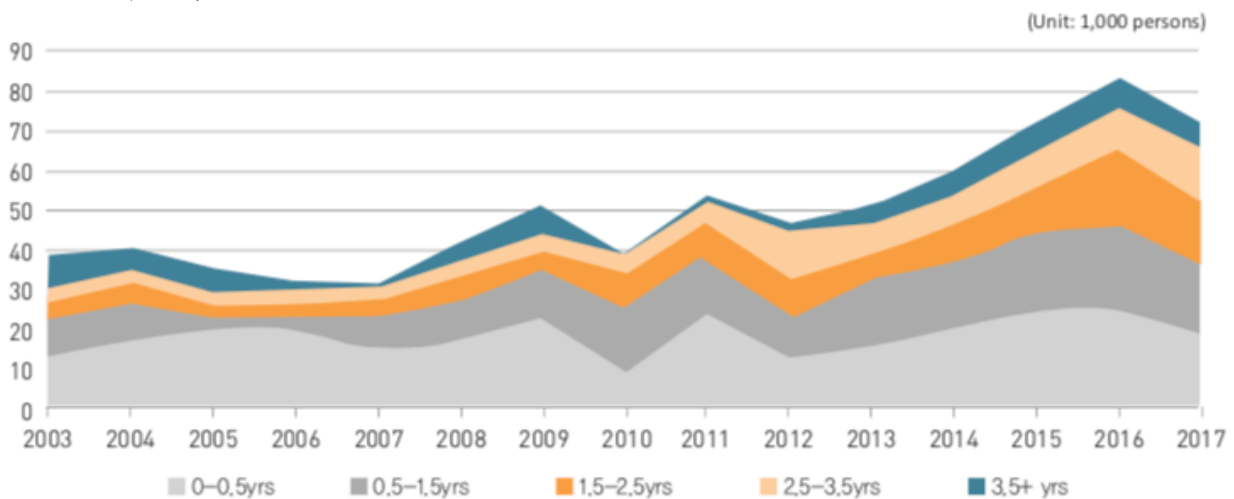
In terms of income levels, the only source of data is from the OECD statistics database that gives the comparative position each country occupies among OECD and partner nations with available data. Specifically, the earnings of adults without an upper secondary education are relatively low for both Korea and Colombia compared to those of adults with an upper secondary or a post-secondary non-tertiary education, in relative ranks of 32 and 35 respectively out of 37 nations (OECD, 2018c). As well, while the earnings of 25-64 year-old full- and part-time

workers without upper secondary education are comparatively low for Korea and Colombia (rank 29 and 34 out of 37), that of full- and part-time workers with tertiary education are comparatively low for Korea (ranked 18) but high for Colombia (ranked 3 out of 37) (ibid.). The earnings premium for individuals who hold a tertiary degree in Colombia is over twice as much as individuals with upper secondary qualifications (136% to be precise), which is significantly higher than the OECD average of 55%; and tertiary-educated adults in Colombia benefit from higher employment rates (ibid.). In contrast, the earnings premium for those with tertiary education in Korea is lower than the OECD average – just 38% more than those with upper secondary education (OECD, 2016a). What’s more, in Korea “37% of all tertiary-educated adults aged 25 to 64 had no earnings in 2014”, which proved to be the highest rate among OECD nations (ibid., p.8).

The relatively high youth unemployment rate, low employment rate, and low economic benefits of education in terms of income experienced by Korea have been a topic of interest for researchers, though no comparable data could be found on Colombia. Trying to account for the youth unemployment rate which continues to ascend to a current level of 10.5% (approximately triple the general unemployment rate of Korea at 3.6%), researchers have looked at national career path survey data and occupational mobility surveys of the Korean Employment and Information Service (KEIS) (Chung, 2017; Lee & Cho, 2017). As mentioned, Korea’s education system is structured around CSAT test-taking which determines where the students can go for higher education. However, even after entering university or college, many students have reported struggling to search for their career paths, “because students often choose their major based on the CSAT score that satisfies the admission requirements,” not based on their interests

(Kwon et al., 2017, p.74; see also Kwon, 2014). Upon graduation, Kwon (2014) found that “42% of college graduates are oversupplied, and 10% of the youth are estimated to be underemployed” (p.39). The number of decent jobs desired by graduates, however, has not increased as much as that of those who are graduating (Kwon, 2014; Choi, 2017). The economic outcomes of the students include the following: 40% of those who managed to find a job felt a mismatch between the job and their studies (Kwon, 2014, p.40); students deciding to delay graduation by taking leave of absence for preparation for job market *or* continuing to higher education at the graduate level have become prominent (Chung, 2017); and finally, the number of those who remained unemployed long after graduation has increased from 2013 (Table 9) (Choi, 2017). Due to these various situations faced by the students, Korean researchers claim that the actual unemployment rate of youth is likely to be higher than the official figure (Chung, 2017) and the phenomenon of “excessively academically qualified jobseekers and academic background inflation” has cast doubt on the quality and job relevance of Korean tertiary education (Lee & Cho, 2017, p.630; see also Kwon, 2014).

**Table 9. Distribution of years passed after graduation among the unemployed: 4-year college graduates (2017)**



Source: Calculated by author using Statistics Korea's Economically Active Population Survey: Additional Survey on Youth Population (May of various years)

Source: (Choi, 2017, p.7)

## 6.4 Social and Political Outcomes

Social and political outcomes include the interest and participation of students in the social and political realms of the communities and societies they live in as a proxy measure for their levels of ‘active citizenship’ and civic engagement. The indicator measuring social outcomes for this MRP is the Life Satisfaction Level reported by students; and those measuring political outcomes include electoral participation and volunteer/community activities.

### 6.4.1 Social Outcomes – Life Satisfaction

OECD (2017b) measures life satisfaction of the general population of each country by how people evaluate their life as a whole on a scale from 0 to 10 considering health, education, income, personal fulfilment and social conditions. People on average across the OECD give 6.5 while Korea and Colombia yield respectively 5.9 and 6.4. Specifically for the student population, the surveys conducted with the PISA 2015 for 15 year-olds across participating nations show the average satisfaction level of 7.3, 6.4 for Korea and 7.9 for Colombia (OECD, 2017c). While Korea placed second last of 47 OECD and partner countries after Turkey, with fewer than 1 in 5 students reporting they are *very* satisfied with their life, more than 1 in 2 Colombia students reported similarly high levels of satisfaction (ibid.). As displayed in Table 10, Korea is seen among the top scoring nations on PISA (science) but one of the lowest satisfaction levels, whereas Colombia is found among the low scoring nations but among the highest satisfaction levels (ibid.).

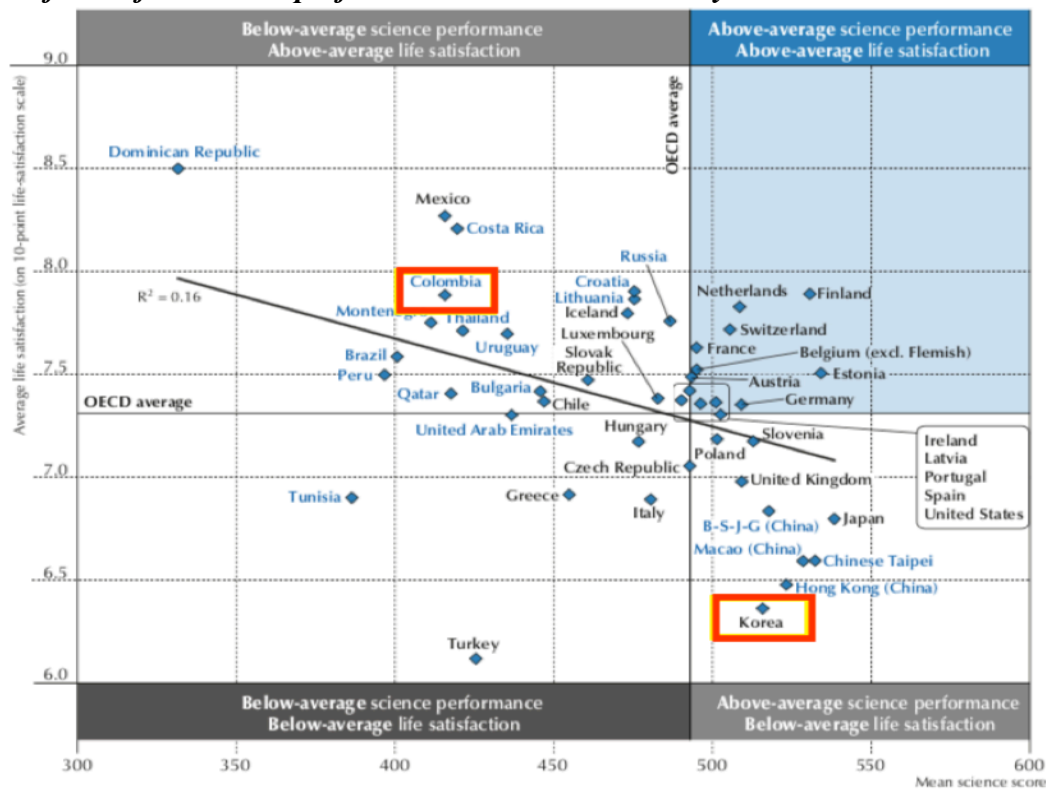
In its attempt to account for the striking Korean result, the OECD report (2017c) states that because social obligations and education are highly valued in Korean society, “meeting these social norms and expectations are the primary sources of life satisfaction for students” (p.72). In

fact, Yoon and Järvinen (2016) used the previous PISA 2012 data of Korean student population to conclude the following:

Korean students' views of their school happiness and satisfaction were at the bottom level of the scale...[The] majority of Korean students also receive extra private lessons after normal school hours...The excessive amount of study hours and academic competition that Korean adolescents face are assumed to increase the level of the academic stress that they feel in and out of school (p.437).

This finding is echoed by multiple studies which raise a serious social concern. The explosive increase in expenditure on shadow education in Korea has resulted in “inefficient competition” where parents and students invest money and time for better grades in pursuit of the small number of high-return jobs (Chung & Lee, 2017, p.163). This is evidenced in the economic outcomes of the students – 46% of persons with income being dissatisfied with their earnings (KOSTAT, 2017). The expansion of shadow education also creates a challenge for public education as students and parents view the private lessons as being more effective than the formal school system (Park et al., 2011). This extreme competition and stress often leads to psychological and emotional problems that lead to anxiety, depression, and even suicide (Kim, 2009; Kwon et al., 2017; Jung, 2014; So & Kang, 2014). Indeed, increasing youth suicide rates (15.3 out of every 100,000 youth of 15-24 years) have become a serious social issue tied to education in Korea (So & Kang, 2014; Jung, 2014).

**Table 10. Life satisfaction and performance across education system**



Source: (OECD, 2017c, p.74)

Analysis of Colombian students’ higher-than-average life satisfaction or evaluation studies of the EN model containing students’ satisfaction levels could not be found. However, there are suggestive findings supporting high satisfaction levels among Colombian students as reported by the OECD (2017c). In studying the impact of the EN model within the conflict affected areas of Colombia, Vega and Bajaj (2016) observe the program’s ability to instill in students the capacity to envision a better future. As one student who was interviewed indicated, the EN model allowed him “to be somebody” (p.368). Moreover, as mentioned previously, the rights-based elements of the EN model such as the flexible curriculum and advancement for each student, the ownership given to the students to take control of their learning (Colbert, 2009), the findings of reduced drop-out and repetition rates (Schiefelbein, 1993), increased participation of children in their learning (USAID, 2003), and the formation of meaningful relationships

(Parandekar et al., 2017) allow one to infer that EN has contributed to positive educational experiences.

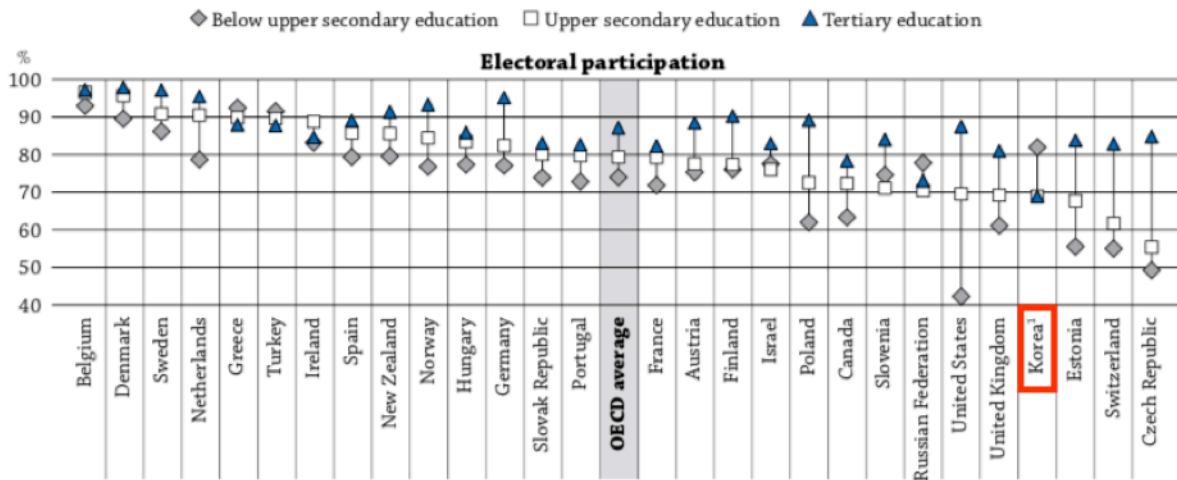
#### ***6.4.2 Political Outcomes – Civic Engagement***

Civic engagements include indicators such as electoral participation, political interest, and volunteer/community work. For Korea, the data relating to these indicators are scarce. While Statistics Korea (KOSTAT, 2017) portrays 17.8% of voluntary service participation rate in 2017 for the general population, OECD (2015c) reports that 11% of Korean youth aged between 15 and 29 were affiliated with humanitarian or charitable organisations in 2012 and 25% of youth had provided voluntary services in 2014, slightly above the OECD average of 23%. The higher rate of youth voluntary service participation rate, however, is explained by the compulsory volunteer program as a part of the upper secondary education as well as university admission applications (Ozawa, 2013). In a survey of students' attitudes towards the mandatory volunteer program, Ozawa (2013) found that 46% of Korean high school students were not satisfied with the program versus 32% who were satisfied. Most do not perceive the program as useful. 48% of respondents disagreed with the “mandatory” aspect of the program, and 34% said that they would be more accepting of the program if it was more related to academic subjects or would contribute towards future employment.

In terms of voting, Korean students deemed “political” issues to be superfluous, as they have nothing to do with examinations (Kwon et al., 2017). As shown in Table 11, Korean adults with below upper secondary education, upper secondary education, and tertiary education had a downward electoral participation rate of 82%, 69% and 69% respectively, while the OECD

average stood at 74%, 79.4% and 87.2% respectively, rising with higher education level (OECD, 2011).

**Table 11. Proportion of adults voting, by level of education (2008)**



Source: (OECD, 2011, p.194)

For the Escuela Nueva students, evaluation studies have yet to indicate in any satisfying way that the EN program has an impact on the *later* political behavior of students who have graduated from schools classified as EN. The only substantive information comes from Forero-Pineda et al. (2006) who conducted a study of EN alumni. It indicated a higher level of active citizenship among EN alumni in comparison to the traditional school alumni through the following indicators: the propensity of alumni to join voluntary organizations was higher for EN alumni based on a questionnaire which asked how many and which kinds of voluntary organizations they had participated in over the course of the last two years; and, EN alumni were more likely to engage in participatory democracy (e.g., “higher likelihood to present initiatives to the mayor and collaborate with local authorities”) while conventional school alumni showed a preference for representative democracy (e.g., “higher likelihood of *acknowledging* that the

mayor of the town has asked them to vote for a certain initiative”) (Forero-Pineda et al., 2006, p.288).

Despite the limited evidence revealing the political behavior of students after they have graduated, there are sufficient findings to suggest that the EN model positively impacts the political identity of students, as stipulated by the increase in ‘democratic behavior’ of the EN students (Bianchin, 2011; Schiefelbein, 1993; USAID, 1994; Pitt, 2003; OECD, 2016b). Multiple evaluation studies have shown EN students with significantly higher scores of democratic behavior than traditional school students and they point to the student governments in the EN model that include student committee divisions for cleaning, sports, newsletters, etc., as the impetus for political engagement (Schiefelbein, 1993; USAID, 1994; Baessa et al., 2002; Bianchin, 2011). Additionally, findings consistently show that the EN model has positive impact on the communities that adopt the model (Bianchin, 2011; Martins, 2017; Forero-Pineda et al., 2006). This is demonstrated by increased participation in school and community activities by parents. The activities include electing community leaders and monitoring community projects. In one study, an estimated 72% of EN parents indicated that the activities of EN schools helped them solve community problems (Bianchin, 2011). The EN schools also helped to influence community leaders in their higher participation in community projects (Martins, 2017). Similarly, in response to a questionnaire, EN students answered more positively to statements such as, “I work in a team to solve problems in my community,” “I proposes solutions for a problem,” and “I believe my actions make a difference” (ibid., p.80).

The emphasis on student government, activities relevant to students' communities and the open-classroom structure of EN model have contributed to higher self-esteem, strong sense of leadership and youth interest in the activities of their communities (Parandekar et al., 2017; Le, 2018; Schiefelbein, 1993; Martins, 2017; Forero-Pineda et al., 2006; Bianchin, 2011). All of this points to "greater likelihood in graduates of the Escuela Nueva to participate in elections or to volunteer" (Bianchin, 2011, p.68).

## **7. Summative Discussion**

This MRP has been founded upon the idea that the international race towards narrow goals of "higher scores" on standardized tests like the PISA in the belief that it would raise the "quality" of national education systems may be taking the wrong route, unable to see other important aspects of educational goals.

As the findings summarized in this MRP suggest, behind the high attainment and achievement scores of the Korean students and much evidence that the education system equips them well with sufficient knowledge for test-taking, the dark side of placing one narrow goal of "higher scores" reveals dissatisfied, uninterested, passive and stressed students lacking creative, critical thinking and social skills who are almost all competing for placements in elite universities and relatively few high status job openings. The hope that their investment of time and money in education will bring high-return jobs dissipates as they face the harsh realities of unemployment or under-employment which may explain the decreasing levels of involvement in their society such as the electoral participation. Many CEOs and executives support the importance of the 21<sup>st</sup> century skills of creativity, communications and collaboration, which they

claim are lacking in Korean workers (Shin, 2018, May 8). The Korean education system, thus, fails to match the educational curriculum to the skills needed and expected for the workforce.

The culprit of the failure of the Korean education system to guarantee the goals of educational quality other than student achievement seems to point to the CSAT (So & Kang, 2014; Kwon et al., 2017; Jung, 2014). The whole pre-tertiary education system, driven by the objective of preparing students for this one test, combined with the highly centralized, prescribed curriculum, has influenced all stakeholders involved in the system (policy makers, teachers, parents, students). This is especially true among the students who early on come to value lessons that will be on this test solely, because the test score will have the power to determine their futures. Realizing the issues that arise from education, there have been a series of reforms by the government to break away from teaching the traditional type of knowledge that is identified as test preparation. The main reforms were: (1) in 2009, schools were given autonomy in deciding to “increase or decrease per subject class hours by 20%” and to emphasize creativity building education (So & Kang, 2014, p.801); (2) the evaluation of schools and teachers was introduced; (3) middle and high schools were diversified, and the right to choose high schools was legislated; and (4) changes in policies for “entrance to universities from a single test” to the inclusion of multiple assessment portfolios were enforced (Kwon et al., 2017, p.63). Yet despite these efforts, such reforms were rarely implemented to any full extents, since increasing class hours were allocated to subjects that were included in the CSAT, and reduced class hours were allocated to “non-intellectual” activities like art, music, and physical education (Jung, 2014; So & Kang, 2014; Byun et al., 2012). Likewise, schools and teachers continued to be evaluated based on their ability to get their students admitted into colleges. Therefore, without any systematic change to

the CSAT-taking and its connection to students' futures – not just adding minor revisions, but to design long-term plans for reform – policy changes have tended to remain at the rhetorical level only (Kwon et al., 2017; So & Kang, 2014). It is clear, therefore, that educational policy-makers of Korea must realize that the proper use of assessment is to diagnose different functions to measure students' learning rather than using it as a decisive factor of one's life decision. As So and Kang (2014) argue, reforms will only succeed “if there are innovations in teaching and learning, and new forms of assessment. Furthermore, it is necessary to restructure school culture to respond to these changes” (p.801; see also Kwon et al., 2017; Jung, 2014).

On the other hand, although data on the EN student population in terms of economic outcomes and social outcomes are relatively scarce, findings regarding the EN model of Colombia have shown a general tendency for the model's potential to foster a host of positive achievements through means of a child-centred, participatory, collaborative and flexible learning environment. Enabling students' substantial autonomy in their own learning, working at their own pace with other classmates to solve problems, and making the curriculum and the activities relevant to the lives of the students and the communities they live in have not only reduced drop-out and repetition rates among the students, but has also increased academic performance, creativity, critical thinking, social skills *and* student engagement in communities as well as in school (Colbert, 2009). There is also suggestive evidence that such educational experience enhances student advancement into higher education, therefore improving the long term possibilities of attaining steady, reasonably well paid employment. Indeed, access to tertiary education appears to be increasingly common among the younger generation in Colombia (OECD, 2018d). Additional evidence of satisfied students actively involved in community

activities suggests that former EN students are more likely to participate in political realms (e.g., voting) as engaged citizen than are former students in Korea.

The success of the model is, of course, a combination of many different elements working together: personalized learning motivates student interest; student government instills democratic values and leadership; monthly meetings with community leaders and parents to determine projects relevant to the community bring different local stakeholder in the children's education; and, open classroom structures and small-group activities foster teamwork, cooperation and friendship (FEN, n.d.; Colbert, 2009). What is significant about the model is that all these elements of pedagogy, curriculum and structure have been drawn from research-based practices *and* they have been carefully designed to consider to make use of existing local facilities and equipment that are easily replicated (Colbert & Arboleda, 2016). However, the most important and perhaps essential 'ingredient' for such innovation to have worked for such long period of time – locally, nationally and internationally – is the civil society organization (FEN) being in a partnership with the national government to effect fundamental change in mainstream school cultures (Colbert & Arboleda, 2016; Howe & Covell, 2013). In addition, it is also clear that apart from civil society/government partnerships, the long-term efficacy of the EN model ultimately depends on sustained collaborative implementation by all stakeholders, as findings have consistently shown (Le, 2018; Hammler, 2018).

## 8. Conclusion

The findings of this MRP are subject to a number of limitations. First, I have had to rely entirely on English language sources; yet understandably much research on education in Colombia has been conducted in Spanish. As well, because of the years of civil conflict in Colombia, the availability of data and the variety of the indicators published on the international databases have been limited. Secondly, data regarding the economic outcomes and social and political outcomes in Colombia have been derived from statistics at the national level, and this has hampered some of the findings related to the EN model since national statistics do not necessarily indicate evidence pertaining to all EN students. Furthermore, as indicated earlier, statistics concerning the reach of EN in Colombia are not fully up-to-date although there are references to 20,000 EN schools in all 32 departments of Colombia out of 34,000 primary schools (58%) by 1992 and over 5 million children enrolled in EN globally by 2009 (World Economic Forum, 2017; Colbert & Arboleda, 2016), along with further indications of the EN model spreading to urban schools and to secondary schools in Colombia as well as 16 other countries (FEN, n.d.; Colbert & Arboleda, 2016; World Economic Forum, 2017). Nonetheless, based on the report that 8.6 million students were enrolled in primary and secondary schools in 2014 in 52,000 schools and 10,000 private institutions in Colombia (World Economic Forum, 2017), it has been possible to infer that EN exercises considerable influence within the context of Colombia. Thirdly, the scarcity of literature regarding students' political participation as well as some aspects of economic outcomes - the types of jobs obtained by upper secondary graduates, their relative income and socio-economic status – also applies for Korea, even though the country has an abundance of data in both Korean and English. Finally, the research is limited in the available indicators of academic performance, creativity and critical thinking, economic

outcomes and socio-political outcomes. Although I have labeled my conceptual framework ‘all-encompassing’ for this MRP, these are just one set of educational goals of “quality” and are not in any way exhaustive.

In view of these limitations, future research could expand on the impact of EN by engaging with the Spanish language studies and Colombian statistics database for better and more accurate comparison, particularly in relation to indicators of economic, social, and political outcomes to ensure validity. Likewise, further follow-up studies of the EN school alumni and the changes they have experienced (e.g., whether their SES has been improved in the long-term) ought to be useful. For Korea, future research endeavors should provide more evidence of economic outcomes that cover the following areas of analysis: reasons for unemployment and underemployment of many otherwise well-educated former students; the first jobs students are able to attain, including their income levels and indications of the SES in comparison to investments spent on their years of schooling and cram school. In addition, more studies should be conducted on the political behaviours of Korean youth and young adults – e.g., why Korea is the only country with an inverse relationship between education levels and electoral and voluntary service participation rates.

Despite its limitations, this MRP contributes to existing scholarship by compiling comparative evidence of two educational approaches in two nations. Many studies can be found examining the education systems and models of separate countries. Yet, the comparison between schooling in Korea and Colombia in relation to different indicators of educational quality has hitherto not been done. In so doing, this MRP challenges the current direction of global

education that emphasizes efficiency, measurable outcomes and standardized curriculum and testing, and shows that curriculum which is more aligned with the so-called student-centred, rights-based education model can in fact, yield positive long-term outcomes which in many instances are better than the high-stakes testing orientation of education. It therefore points to the need for a more holistic and *balanced* definition of “educational quality” when assessing education systems. Finally, it points the direction for future research on similar types of comparison, especially given growing concerns about the lopsided emphasis on high-stakes testing which: a) pushes out many bright children and produces many unintended negative effects of boredom and disengagement (Sahlberg, 2010; Ryan & Weinstein, 2009); b) in turn raises questions about the efficacy of education as a form of investment in “human capital” when much of the potential capital is lost due to the failure to cultivate “non-academic” skills (Peters & Oliver, 2009); and c) is failing to accommodate the rapid economic and technological changes that require so called “21<sup>st</sup>-century-skills” of creativity, communications and collaboration (Ferguson, 2014). Although it does not provide definitive answers, this MRP clearly points the way for further research and systematic analysis on the complex issue of the quality of national education systems.

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