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The Social Effects of Higher Education Policy in South Korea: The Rise of the “Pig Mum” phenomenon

Eugene Lee ¹, David Santandreu Calonge², Patrik Hultberg³

The contemporary educational system in South Korea is built on high-stakes standardised tests, a manifestation of the national project of social reconstruction and reform. One recent outcome is the emergence of an unfamiliar yet ubiquitous phenomenon: the “pig mum”; a Korean parent who is fully involved in organising, scheduling and managing the educational process from primary to secondary school for a group of children in a neighbourhood. Based on a quasi-mixed method utilizing a survey of a group of students and parents, this pilot study explores the “pig mum” phenomenon and its linkage to education policy. The authors conclude that the current educational policy fails to achieve the ideals it professes to value. This creates deep and negative societal norms that endanger a growing generation of students by creating a parallel private education market environment where “pig mums” thrive.

Keywords: Education Policy, Higher Education, South Korea, Pig Mum

Introduction

Over the last 30 years the South Korean government has implemented a nation-wide standards-based education. Due to high test scores, Korean educational outcomes have been celebrated in the international media in the past decade. For example, in 2012, Korea, together with Finland, ranked highest in the Global Index of Cognitive Skills and Educational Attainment, a composite score of international test scores, literacy and graduation rates (Lau, 2012). Korea also scored highly in the Programme for International Student Assessment (PISA) (Kelly et al., 2013), an international assessment that measures 15-year-old students' reading, mathematics, and science

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literacy. In response, articles have analysed developments in South Korea's education (e.g. Reichert, 2013) and have highlighted some of the social issues Korea is currently facing.

The educational success of Korea's educational system carries some costs. Numerous articles and video reports in South Korea's media have covered the ills of its education system (Jang, 2015; Lee, 2013; Lee, 2014a; Yonhap News, 2015; Yoo & No, 2015). The current education "machine" produces so many highly-qualified students that the government is having difficulty differentiating between them. In addition, this overly qualified workforce is unable to find employment commensurate with their level of skills given the structure of the domestic labour market. The lack of demand for such capable workers is striking, as only a limited number of prestigious *chaebols* or large family-owned corporations are likely to employ them. As a result, students are competing fiercely for these limited future work places, and this competition starts as early as middle school.

The demand for excellent education stems not only from high income households, but also from the lower income groups. Recently a new social phenomenon has emerged in private education: "the Pig Mum." The *Dwaeji Omma*, or "Pig Mum," researches, plans, and organises every step for the children in her Pig Mum network in order for them to reach the ultimate goal of admission into any of the top three Korean universities – Seoul National University, Korea University, or Yonsei University (SKY).

Neither higher education policy makers nor researchers have shown much interest in the pig mum phenomenon. The main challenge has been a lack of investigations in English and Korean on the topic. Although a few Korean media articles mentioned the existence of pig mum networks in major cities, no published studies to date have been found which examine in details the extent to which this phenomenon has spread to all strata of Korean society. The aim of this article is to briefly explore the relationship between education policy in South Korea and the emergence of the social phenomenon of the pig mum. This paper traces its origins, investigates the factors that led to its development, and assesses its significance. The experimental work presented here provides insights into the topic that will hopefully contribute to a deeper understanding of this emerging phenomenon.

This study is exploratory and interpretative in nature. Both qualitative and quantitative methods are used in this research. The key research goal is to identify the impact that national education policy has had on the creation and shaping of the pig mum phenomenon in South Korea's private education. The reader should bear in mind, however, that the findings of this study are based on a series of surveys and open-ended interview questions with a limited number of participants. Additionally, the responses relating to some of the questions were found to be subjective and were therefore susceptible to recall bias.

The article first gives a brief overview of the literature pertaining to the education policies since the 1970s. In the next two sections, a critical assessment of current research and a description of the theoretical foundation of the paper is provided. The fourth section presents the findings and implications of the research, focusing on the four emerging themes from the data. The conclusion

discusses the results and the extent of the impact pig mums have on students and Korean society as a whole.

Literature Review

In 1972, the Korean Ministry of Education introduced the High School Equalization Policy (HSEP) that proposed to eliminate the high school entrance exam and introduced random school assignments (MOE, 1998). This policy was designed to target the already existing intensive competition that was creating a number of issues such as a highly competitive school climate, heavy workloads, and a cram-based, memorization approach to education (Park, 1988). The revision of the policy in 1996 initiated the so-called *common catchment area* schools, where students were allowed to apply to schools of their own choosing (MOE, 1998). The market narrative and the critique of “downward levelling effect” became neoliberal tools challenging the HSEP. As a result, the process of policy making in the mid-1990s and early 2000s began to be dominated by a single idea – the introduction of market competition into the school choice (Byun et al., 2012).

The cultural aspects in the attitude towards education, as stressed by Shinn (1986), were very important and education in Korea contributed “a lot more to the public’s well-being..., where the Confucian concept of self-development through education is still widely shared” (p. 369). Kwon, Lee and Shin (2017) agreed when they argued that contemporary Korean education and particularly its “testocracy tradition” should be understood through the lens of Confucianism. Despite a considerable amount of literature on government education policies in South Korea in the last three decades, to date there is no agreement on their long-term social benefits. The issue has grown in importance in light of recent reports highlighting a sharp increase in youth unemployment rates, from 8.2 per cent in November 2016 to 10.90 percent in March 2019 (Statistics Korea).

The contemporary strife in population for better education, as So, Kim, and Lee (2012) and Kim (2004b) suggested, is a result of a continuous effort by the government through the Korean national curriculum to form and transform South Korean identity. Kang et al. (2007) went further by saying that the government in its attempts “to exacerbate educational and social inequality” (p. 272) may have done a good job by introducing various policies driven by domestic democratisation processes. Kim (2008) gave an extensive analysis of “the policy and practices of restructuring higher education in South Korea in light of the distinctive characteristics of Korean higher education development and government–higher education relations” (Kim, 2008, p. 558). In his argument, the role of government in the development of higher education has been more of a “regulator rather than a purveyor” (p. 559).

Criticism has also been voiced about the assessment of the policy implementation. A study pointed out the limitations of the current assessment provided by the government by arguing that “although short-term mechanisms are comparably important in some cases, learners’ cognitive, affective, and sociocultural competencies should be equally considered from a long-term

perspective” (Kang et al., 2010, p. 167). More recently, literature has emerged that openly criticised the excessive participation of government in the education policy and challenged its outcomes. One of the most significant current discussions relates to the excessive pressure put on academic performance. Park et al. (2012) identified “several factors that were associated with adolescent depression experience in South Korea” (6).

Lack of consistency in policy application has deep economic and societal effects. The current government’s dilemma is also in deciding on market vs. merit-based education (Kim & Lee, 2006). The most recent OECD report on education policy, titled “Education Policy Outlook Korea 2016”, reported that “private expenditure on supplementary tuition in specialist after-school providers (known as *hagwon*) remained high. In 2015, 69.4 per cent of middle school students and 50.2 per cent of high school students participated in private education. In 2018, 73 per cent of 5.58 million students attended hagwon. In addition, “44 per cent of all expenditure on higher education is funded by households, and tuition fees are higher than the OECD average” (OECD, 2016b, p. 16).

Additionally, OECD analysis suggested that the policy focused on issues that were very difficult to solve without a significant budget and this, in consequence, resulted in deficiencies. It noted that “pressures on the education budget arise from the rapid expansion of free early childhood education and care, government efforts to reduce the financial burden on households for expenditure on education and private tutoring, financial investment to increase equity of access to higher education and initiatives to improve the quality of education at all levels” (OECD, 2016c, p. 16).

Kim (2004a) indicated that drastic changes in policy also negatively affected teaching personnel. He noted “that the teachers who overcome standardised classroom teaching, and have been frustrated by limited resources and the existing school system, are now being frustrated again by recent re-standardisation policies” (p. 125). Kim & Kim (2013, p. 118) emphasised that the impact of these changes also extended into the teacher-student relationship and affected students’ school life satisfaction, which are reflected in their study of a government action, as part of the Promotion Programme for Vocational High Schools introduced in 2000.

There are calls for change in the literature (Lee & Kim, 2016). A number of papers indicated a large disparity between what the policy aimed to achieve and the results it actually produced (Chi et al., 2013) such as skills mismatches (OECD, 2015a, p. 18) and low labour productivity (OECD, 2016a, p. 29). Korean higher education has made several significant strides toward catching up with the western front-runners (Cho & Palmer, 2012). However, Kim (2005) emphasised that the current system was “now considered increasingly unviable as globalisation progresses” (1). Kim (1999) warned that the education system was inadequate and globalisation would “place South Koreans in a very difficult situation given that the globalising world market requires well-trained, versatile workers who can nimbly adjust to the changing world of work” (p. 17).

This dissatisfaction with “the most exam-obsessed culture in the world” (Seth, 2002, p. 5) and an often-considered inefficient English language education (Park, 2009) seems to have exacerbated *Kirogi* migration (Kim, 2010, p. 281), whereby a father, while based in Korea, provides a financial support to the rest of the family residing in the U.S. (or increasingly in Southeast Asia, in countries such as the Philippines or Thailand) for educational purposes (Strother, 2015; Finch & Kim, 2012). The OECD has pointed out other shortcomings in South Korea’s educational policy, including a lack of clear distinction between what constitutes private and public education (Norton Grubb et al., 2009, p. 33).

Even if the goals set by these policies are “to enhance the quality of education in order to reach world standards, to focus on a nation’s cultural heritage so as to harmonise other ethnic cultures, and to become more market-oriented, privatised, and diversified” (Lee, 2004, p. 17), research indicated that the implications of such excessive focus on privatisation of education had a significant impact on various echelons of Korean society, with serious collateral consequences: In 2018, household debt to gross domestic product increased at the second fastest pace in the world (debt in the fourth quarter of 2018 amounted to 1,444.50 trillion won (US\$1,284 billion, according to the Bank of Korea)). Depression, suicide rates (26.5 per 100,000 people in 2018) are still at record levels, marriage rate (5.5 per 1,000 people in 2018) is very low, and alcohol consumption (South Koreans drink 13.7 shots of liquor per week on average and are ranked number 1 in hard liquor consumption by the World Health Organization) is very high (OECD, 2013). A Ministry of Education survey of 6.5 million students between the ages of 6 and 18 showed that “over a million students (16.3 per cent) needed psychiatric counselling, 4.5 per cent needed intensive treatment, and 1.5 per cent were under imminent danger, such as committing suicide” (Lee, 2013, p. 6). OECD also reported that suicide was the number one cause of death among teenagers, with Korea having the second highest rate of suicides between OECD countries (OECD, 2015b, p. 56). In 2014, only 67.6 per cent of Korean youth said they were satisfied with their life mostly because of study pressure (Santandreu Calonge, 2015). Moreover, in 2015, Korea ranked in the bottom fifth of OECD countries in three categories - social connections, work-life balance and health status (OECD, 2015b, p. 3).

In recent years, researchers have shown an increased interest in the prevalence of private tutoring, particularly in Asia. Bray & Lykins (2012) stated that nearly 90 per cent of elementary students in Korea were enrolled in some sort of private tutoring. Questions have been raised however about its value and its social impacts (Kim, 2016). For example, Ryu and Kang (2013, p. 81) argued that private tutoring reduced “a student’s enjoyment of learning and motivation for self-study, thereby crowding out the hours of self-study.”

Education policy’s impact on society is even more extensive. Historically, success in completing state government exams meant not just a potential position but also the highest respect and provision for several generations of an extended family. Today, however, success is no longer left to chance. It is a focused and well-planned enterprise. What propels many Korean teenagers now is the extremely oppressive desire to pass the entrance exam (College Scholastic Ability Test or *suneung*) to a high-ranking university (Lee, 2013). The immediate consequence is an education “arms-race,” which starts early for the children, for some even as early as

kindergarten. Children are constantly reminded of the importance of academic success with only one goal in mind: if one wants to be prosperous and happy he or she will have to make into one of the top three universities, Seoul National, Korea or Yonsei. The competition intensifies when students enter middle school at the age of 12. Parents are constantly informed of the relative progress students are making at the school, and are left with only the option to fully dedicate themselves to the academic performance of their child.

This strife drives them to seek the best of the best: best schools, best *hagwons*, and best private teachers. Some areas of Seoul (Daechi-dong) have become famous in response to that demand. This drives parents from across the country to seek housing in the area at least until their child enters a respected university, raising prices for housing, as well as tuition fees in the neighbourhood. Demand for Daechi-dong has increased not only due to well-developed educational programmes, but also as a result of an unhealthy collusion between private schools and universities. Some even alluded to governmental influence. Several cases of leaking national exam samples over the years to some of the owners of those schools (the most recent scandal was in November 2017 when 27 out of 30 questions of an English mid-term exam were leaked to private tutors) have uncovered the murky and unfair world of private education in South Korea (Bracey, 2005). It caused a public outcry to stop corruption and forced some parents to accept reality and try to get their share of the pie, making the area both famous and infamous.

The competition for better education has led to the creation of a well-honed educational private ladder where fewer students are able to afford a prohibitively expensive private education (Lee, 2014b). The government reports progress in reducing private education participation by providing more after-school programmes (see table 1). In reality, these programmes are mandatory, forcing middle school students to take after school programmes at the schools. It is thus the increasing cost of private education, not the government efforts, that results in both fewer and more discriminative private education students.

Two important themes emerge from the studies discussed so far: the outcomes of the education policies over the past decades, specifically related to its effects on society are ambiguous and the role they played in the development of a phenomenon such as the “pig mums” are perplexing. The key research question of this study is: *What is the impact of national education policy on the creation and shaping of the pig mum phenomenon in South Korea’s private education?* Two additional sub-questions will be addressed in the methodology section: 1) *What is the motivational rationale for Korean parents to socialize, form like-minded networks such as the “pig mum”, while investing substantial sums of money on private education?* and 2) *To what extent did education policy application and mechanisms facilitate the conditions for the creation of “pig mum” networks?*

Theoretical Considerations

From the field of education policy, the overall picture is that the government shapes the attitudes towards education in schools. Parents, however, play an integral role in the educational process outside of the school premises and after school private tutoring is “an integral part of the entire education system” (Kim & Lee, 2010).

Depending on current government policies, the definition of *better* education changes has evolved over time. Often, change has meant shifting different weight in importance between subjects like mathematics, history, science, Korean and English. Park et al. (2011) found that “a large number of parents extensively gather information to find a private tutoring service that would best fit the needs of their children and also continuously collect information on their children’s progress from private tutors and hagwon instructors.” Table 1 below shows expenditures on education between 2005, 2010, and 2015. The expenditure during the period between mid-income families fluctuated slightly. The table shows that high-income families continued to allocate the same amount of budget for education, whereas low-income families drastically reduced such expenditures, which may be as a result of rising housing prices. The table shows the trends in percentages, while actual expenditures in absolute terms rose as the national GDP rose from US\$21,389 in 2003 to US\$34,569 in 2015.

Table 1

Percentage of expenditure on education per household by educational attainment of household head and household income (in per cent)

Year	Total	Educational Attainment			
		Middle school graduate and younger	High school graduate	Junior college graduate and over	
2005	11.3	7.1	11.7	13.1	
2010	13.0	5.4	13.0	15.4	
2015	11.1	3.2	10.5	13.2	
Year	Average monthly household income				
	< 1million won (~\$1,000)	1 ~ less than 2 million won (\$1,000~\$2,000)	2 ~ less than 3 million won (\$2,000~\$3,000)	3 ~ less than 4 million won (\$3,000~\$4,000)	5 ~ less than 6 million won (\$5,000~\$6,000)
2005	6.9	8.8	10.9	12.1	12.5
2010	6.1	8.0	10.5	13.2	15.1
2015	2.8	6.1	7.4	9.9	12.6

Notes. Source: Statistics Korea (2015). Household Income and Expenditure Survey each year

The discussion above leads to our first sub-question of why do Korean households spend so much money on private education. In addition to the cultural and social reasons for educational expenditures, there are important economic reasons for making educational investments for individual families and society at large. Education is a private good with external benefits; that is, benefits from education accrue to both the individual student and society. Our working theory is that *a student (or family unit) only considers the private benefits when deciding on how much time and money to invest in his or her own education*. The social benefits are thus ignored by the private decision maker, which is why there is a need for government intervention. Accordingly, the Korean government has invested in public educational institutions and various targeted programmes to subsidise the private costs of education. In addition, in an effort to raise educational standards, the government has created a test-based system which acts to raise the private benefits from education by limiting access to educational institutions and opportunities.

Over the past thirty years these government programmes have encouraged households to invest in ever greater amounts of educational attainment for their children. These public investments and assessments supported the rapid growth of the economy. Today, however, the standards-based education system may lead to overinvestment in education by the Korean families as indicated by (1) the mismatch between demand for highly educated workers and its supply, (2) the problems of debt payments, (3) low fertility rates, as well as (4) emerging social problems of depression, life dissatisfaction, divorce, and even suicide.

The first research sub-question can be explained by economic motivation, a pursuit of an advantage based on calculation of long-term benefits (a US\$ 40,000 a year entry-level job salary at Samsung is tempting, in comparison minimum wage in 2019 was 8,350 won (US\$ 7.37) per hour), and is aligned with the main arguments of human capital theory, as argued by Hultberg, Santandreu Calonge, & Kim (2017). This economic approach to education expenditures has been an influential model for understanding private and public investment decisions in national development. This theoretical framework assumes that families with children compare the discounted expected benefits of educational investments to the direct and indirect costs associated with such educational activities. Households engage in education if expected future benefits are greater than the costs. The government can influence these decisions by partially controlling households' benefits and costs through various policies. This, in general, is how the government was able to greatly increase the levels of education in Korea over the past several decades.

However, policies can often lead to either an overinvestment in education or inappropriate educational expenditures. This is especially true as society and labour markets change quickly over time. This may have happened in Korea as the workforce employed by large chaebols has been reduced (providing only about 20% of the jobs in Korea), unemployment has increased (unemployment among those ages 15 to 29 was 11.6% in Spring 2018) due to automation and overseas expansion, while families have engaged in an educational "arms-race" by investing in private after-school tutoring programmes. This arms-race was a predictable outcome of the government's standards-based approach to education, an approach that created "the most exam-

obsessed culture in the world” (Seth, 2002, p. 5). The importance of exams and especially the college entrance exam, gives families strong incentives to invest in private tutoring for their children in order to supplement their public education.

These government policies, and the resulting household choices, have created an “education trap” in Korea, where families overinvest in private tutoring to keep up with other families’ education expenditures. This outcome is an inferior equilibrium in the market, as exemplified by Korea’s economic and social challenges, but is a situation that will be difficult to change due to the complementarity of educational investments. That is, a household’s spending on private tutoring programmes acts to increase the incentives of other households to engage in similar expenditures even as the increase in demand pushes up the costs.

Combining changes in labour markets with rising costs of education, especially in specific areas in Seoul, translates into falling lifetime earnings for university graduates. That is, the lower probability of obtaining access to a prestigious university, as well as reduced employment opportunities in large corporations or government (competition for the 1.4 million civil service jobs is also keen), combined with rising costs, mean that the expected lifetime earnings from a university degree are decreasing. This is exacerbated by the highly vertical differentiation of Korea’s university system, where graduates from prestigious universities see a very high college premium while graduates from lesser universities may even see negative premiums, i.e. earn less lifetime income than high school graduates. In fact, since 1995 the bottom 20 per cent of 4-year college graduates has earned less than high school graduates (Lee, Jeong, & Hong 2014). According to Kwon Soon-won, a business professor at Sookmyung University in Seoul, “if you work for a small or medium-sized company, you become a second-class citizen with a fraction of the income, long hours and poor benefits” (Kim, 2019).

Despite these economic forces, the complementarity of educational expenses, as well as social and cultural pressures, has left families no choice but to continue to invest in private after-school programmes for their children. The result is that many households are today cash-flow constrained and forced to borrow money to pay for increasing educational costs (as well as housing), which has created high debt. Families are also reducing educational expenditures by having only one child. The market for private tutoring is also becoming more complex, which require families to invest more time and effort to seek out opportunities for their children.

The second research sub-question can be explained by socio-cultural factors, for example, South Korean society is known for its collectiveness (Hofstede & Bond, 1988). It prescribes certain roles for all members of the society. One consequence of rising costs and complexity of the market for private after-school programmes is that families have begun to pool their resources. In most cases, it is mothers who are “spoons,” tasked to do everything for the offspring’s educational achievement, as fathers become bread winners for the families. These mothers create small social networks based on friendship, social status (often related to income) and/or educational background. By creating networks of children, families, and private tutors, households are able to make private tutoring programmes more affordable and gain access to better tutors (and even government officials). These tightly-knit networks where kids’ education is discussed often include private schools’ owners. The most significant and influential ones are

in Daechi-dong, Gangnam District of Seoul. These pressures are the impetus of the pig mum phenomenon in Korea today.

Method

Our research design uses a quasi-method, which includes both, qualitative and quantitative approaches, as mixed methods may provide stronger evidence for results through convergence and corroboration of findings (Greene, Caracelli, & Graham, 1989; Creswell, 2012). Based on the literature, a series of survey (quantitative part) and open-ended interview questions (qualitative) were designed utilizing an explanatory sequential mixed method approach (Creswell, 2014). The data collection happened in two phases, firstly in 2013 and secondly in 2015. Two different groups, parents and students, were targeted in each phase. As a result, four groups of respondents were selected, producing two separate data sets in each phase. As the name of the method suggests, the priority in the analysis was given to the quantitative data and then, guided by the pursuit of explanation of the data, the analysis of qualitative data was conducted.

An explanatory sequential mixed method of group study in two phases was chosen with the goal to achieve maximum randomization in sampling of data and due to the unique nature of the studied phenomenon and in any of the groups, as it allows to identify and further explain factors contributing to the pig mum phenomenon.

This methodology is specifically designed to answer our two sub-questions, which inevitably will lead towards the answer to our main research question. This research deals with the economic factors that are salient in the networking groups, and questions how members of these networking groups fulfil their needs through activities and by learning. To answer these questions, this methodology outlines a definition of the phenomena, and attempts to consider which factors can be regarded as influencing the phenomena and which factors do not. As this is a pilot study, the question of why and how learning is fulfilled (consciously/unconsciously in networking groups) is beyond the scope of this study and it would require an exploration through additional research.

In the first, quantitative, phase of the study, the quantitative research questions focused on the existence of the “pig mum” phenomenon and tested its possible connection to the education system in South Korea. In the second, qualitative, phase, all participants in the quantitative phase were given an option to openly explain in depth their answers elicited in phase one. In this phase, the respondents were able to identify and address influences generated by the education system and education policy contributing to the creation of private shadow education and pig mums in particular.

Quantitative Phase.

The goal of the quantitative phase was to identify the potential weight of selected factors shaped by the education policy (asking whether the education policy had caused students to be more creative, competitive, stressed and whether it was expensive, driven towards university entry, requiring private education, elitist and required parental interference) on the behaviour of parents and students and their choices towards private shadow education. The quantitative data was collected by the researchers via a Web-based cross-sectional survey (McMillan, 2000; Creswell, 2005), using Survey Monkey. The core survey items formed six various point Likert type scales and reflected the following composite twelve variables, representing a range of internal and external factors: divisiveness, cause of stress, cause stratification, lack of creativity, focus, and access limitation. The authors identified those factors through the analysis of the related literature, and theoretical models in previously published research studies: Yo et al. (2010), Suh (2014), Kim (2015), Lee et al. (2015), Rho & Yoo (2016). Reliability and validity of the survey scale items were established based on preliminary interviews and data following established techniques (Yin, 2003). Later to validate and confirm all survey items, inference, and data were triangulated by comparing with evidence in mentioned studies. Two survey items addressed directly the knowledge and relations of the phenomenon of pig mums to the educational system. Finally, a group of external advisers was used to ensure validity of the chosen items. Some additional data for cross-confirmation of this research was used from the reports of Organisation for Economic Co-operation and Development (OECD) and Korea Statistics Office of the government of South Korea.

Survey responses were collected from 120 participants, 70 parents and 50 students in 2015 and 2016 in Seoul and Gyeonggi-do province. The selection criterion for participants was purposive (Huberman and Miles, 2002) and the target population was (1) parents, who had children in the Korean education system, and (2) students, who had, or were currently attending hagwons. The surveys, containing seven questions for parents and four questions for students, took 15 to 30 minutes to complete. The first round of surveying took place in December of 2015 (four weeks) and the second survey took place in November of 2016 (three weeks).

Qualitative Phase.

In the second, qualitative, phase, we used a multiple case study approach (Yin, 2003) to help explain what the pig mums' phenomenon was and whether the factors, tested in the first phase, were or not predictors of parents and students' behaviour in using pig mums. The case study offers a means of investigating complex social units consisting of multiple variables of potential importance in understanding the phenomenon (Merriam, 1988). A two-level approach (Stake, 1995; Yin, 2003) was used to analyse each case, as a first level, and then across the cases, as the second level. As a source of collecting the data, for this phase, all participants involved in the quantitative phase were asked to give in-depth explanations to their choices of the survey questions. A thematic analysis of the text data was used at two levels, within each case and across the cases. While understanding the methodological differences between the interviews and surveys, we sought alignment between interviews and surveys using verification procedures, which included triangulating different sources of information and rich and thick descriptions of the cases (Creswell, 2003; Creswell & Miller, 2002)

A major limitation of this research was the difficulty in gaining direct access to pig mums due to the secretive nature of this phenomenon. (Lincoln & Guba, 1985; Miles & Huberman, 1994; Stake, 1995; Creswell, 1998). Another main weakness of this study was the paucity of published research on the topic. In spite of its limitations, the study certainly adds to our understanding of the phenomenon and its importance.

Analysis.

A major advantage of using mixed research method is that it helped build the essence of explanatory sequential design. In short, the purpose of this research design was to use a quantitative phase and a follow-up qualitative phase to gain further insights. The approach was adopted in order to avoid any inconsistencies in the explanatory process of this research. This research put the first-stage quantitative results from the survey and the second-stage qualitative results from interviews together, through which several main themes emerged. As a result, following this principle in the design research in the findings, we are interpreting the results outlined in those key themes.

The authors used the six phases of thematic analysis proposed by Braun & Clarke (2006). Identities were anonymised and participants were identified as either P (Parent) or S (Student). The relevance of information for coding was based on: 1) frequency of occurrence, 2) whether information was non-confirming to traditional beliefs or normative behaviour, and 3) if interviewee explicitly made an emphasis that it was important. Thematic categories were derived from the indicators by using a constant cross-comparison method (Merriam, 2009). Through a constant process of comparing, patterns were discovered. Four emergent themes were established: 1) Public attitude towards private education, 2) “pig mums”, 3) “Pig mums” and their social status, and 4) pig mums in private education market and education policy.

Findings and Implications

Quantitative results.

The quantitative design and analysis of this research are in addition to the description of the results of each survey question

In addition to the interviews, quantitative data from surveys in 2015 and 2016 reflect attitudes towards education and support respondents’ perception of the current state of private education (Tables 2 and 3).

Table 2

Survey Results, Answers by Parents

Answer Choices	% in 2015	N of responses	% in 2016	N of responses
How would you describe the educational system?				
Academically factionalist	90.00	27	80.00	24
Creative	3.33	1	0.00	0
Competitive	66.67	20	76.67	23
Stressful	60.00	18	73.33	22
Educationally technological	16.67	5	10.00	3
Parentally Invasive	46.67	14	36.67	11
Expensive Private Education	56.67	17	46.67	14
Cramming	63.33	19	53.33	16
Cultivated by Private education	66.67	20	66.67	20
Oriented for Entry into a University	76.67	23	73.33	22
For Study Abroad	26.67	8	10.00	3
Elitist	63.33	16	33.33	10
How does the Korean education system influence your child?				
Stresses them	70.00	21	63.33	19
Makes them elitist	33.33	10	13.33	4
Makes them competitive	40.00	12	63.33	19
Demotivates	36.67	11	43.33	13
Would you say that Korean society is still very stratified?				
Yes, it is	96.67	29	93.33	28
No, it isn't	3.33	1	6.67	2
Are aware of and have you ever met any Pig Mums?				
There are some	31.03	9	43.33	13
There aren't any	10.34	3	16.67	5
There are, but never met	58.62	17	43.33	13
To what kind of activity, do you think Pig Mums would resort to get their way?				
They lobby	50.00	14	41.38	12
They bribe	42.86	12	31.03	9
Through connections in school	17.86	5	6.90	2
Through private tutors	75.00	21	68.97	20
Would you say that to be a pig mum is a social status?				
Agree	3.33	1	41.38	2
Do not Agree	43.33	13	31.03	20
Do not know	10.00	3	6.90	4
Partially agree	43.33	13	68.97	5

Table 3

Survey Results, Answers by Students

Answer Choices	% in 2015	N of responses	% in 2016	N of responses
Are you satisfied with current educational system?				
Satisfied	8.00	2	8.00	2
Average	36.00	9	24.00	6
Unsatisfied	56.00	14	68.00	17
How important, would you say, is/was the success of your studies (entrance into SKY university) to your parents?				
Important	72.00	18	56.00	14
Not important	28.00	7	48.00	12
Have you heard of the term “Pig Mum”? Have you met one before? Do you know any?				
There are	8.00	2	8.00	2
There are none	36.00	9	24.00	6
There are, but never met	56.00	14	68.00	17
Do you think there is a need for the “Pig Mum”?				
Yes	8.00	2	8.33	2
No	60.00	15	66.67	16
Do not know	24.00	6	29.17	7
Other	8.00	2	0.00	0

Parents in Korea have always been interested in the education system. This keen interest is reflected in their careful selection of schools, *hagwons* and private tutors from an early age. As anticipated, our survey results support this claim. The parents also thought that the educational system led to educational stratification. Data showed that only few parents in 2015 and none in 2016 thought education enhanced their children’s creativity, while perception of their children’s stress from education was high (70 per cent in 2015 and 64 per cent in 2016). All respondents expressed dissatisfaction with the educational system. Only 8 per cent of students thought that the system was satisfactory, 36 per cent and 24 per cent saw it as average, and a majority was not satisfied (56 per cent in 2015 and 68 per cent in 2016). Data also revealed that around 90 per cent of parents and approximately 70 per cent of students had direct or indirect knowledge of “pig mums.” Particularly the last four questions in the parents’ questionnaire and the last two questions in the students’ questionnaire serve as quantitative anchors for in-depth exploration in the subsequent interview design.

Qualitative results.

In addition to the elaboration on quantitative findings, the qualitative results based on interview contributed to the research themes. As a result, the authors define this survey research as a pilot study, and the interviews were utilized to conduct qualitative research noting an explanatory sequential design. In the following section, the authors explore four clear cut themes and discuss the connections between them that have emerged from the data.

Theme 1. Public attitude towards private education.

All surveyed parents and students were able to express their views in writing in the open-ended survey questions, and their responses indicated a connection between education policy and public attitude towards it. Respondents expressed dissatisfaction, discouragement, and being compelled to act in a certain way. For example, since Gangnam is touted to be a prime area for private education one respondent (P) said she relocated from the outskirts of Seoul to a near-by location in order to increase her children chances to succeed in the exams. The respondent noted that the move happened after the government implemented changes in the examinations. Three other respondents (P) confirmed the practice by registering their children in another or additional hagwon. One respondent (S) reported her decision to retake the KSAT (*su-neung*) the following year after hearing about upcoming changes in examination procedures and to increase her chances of entry into a higher ranked university. Although respondents may have felt that their behaviour was consistent with their or their child's desire to succeed, it also reflects a common behavioural pattern generated by education policies.

Theme 2. Pig mums.

From interviews (personal communication, November, 2014), it is clear that private school owners consider education a very lucrative business. According to one interviewee (S), in the late 1990s, hagwon franchises opened in less prestigious districts (such as *Seocho*) to attract different demographics: students from less privileged backgrounds, often from rural parts of the country, whose parents could not afford to live or send their children to Gangnam. As a consequence, an unofficial ranking system for *hagwons* emerged. By the end of the 1990s, following changes in the housing and education markets, hagwons began to focus on preparing students for entry to a chosen university. Interviewees expressed that practices of those hagwons were not only illegal, but also unfair. They felt that owners of the schools began colluding with corrupt government officials who would leak information on upcoming exams for money. After several cases of corruption were exposed and punished, hagwons could not openly use any information even if they could get access to it, and the government began cracking down on hagwon activities.

But according to our interviews, the practice became even more ingrained and went deeper into personal relations. The personal networks built on relations between mothers, owners of hagwons, and independent private tutors became a primary medium for the communication. Social skills and parents' personal connections became necessary for children's educational progress. This prompted the emergence of pig mums who began to play a major role in the

market for private education. Eventually, pig mums became a trend. Some respondents noted the first appearances of the phenomenon in the 1990s. One respondent (P) even pinpointed the exact point of origin, Gangnam School District 8. One precursor to their appearance was the practice of families changing addresses to this particular district to acquire better education. According to one respondent (P), the trend even spurred rampant falsification of residential addresses to put the children from the pig mum's group into the district's schools. Another respondent (S) noted an increase in the number of pig mums in the early 2000s.

Three other respondents had seen a small effect in pig mum's efforts. One respondent (S) thought that the growing numbers of students with better academic results would likely lead to a lesser role for pig mums, who rely on a momentum to send their children to a prestigious university. One respondent (P) recalled an encounter with a "pig mum"; a 43-year-old mother, who had recently succumbed to cancer, would spend a substantial amount of money to hire a foreign teacher. To her last days, she would send presents (fruits gift baskets, high grade assortments of frozen meat) to school teachers to assure their special attention to her kids. Yet another indication of the extent to which a pig mum will go for their children's entry to a prestigious tertiary institution.

One respondent (P) provided the following observation:

Pig mums sought out positions in parent-teacher committees at schools, and when possible, would try to get into committee on trustees of the schools, while seeking out opportunities to get deeply involved into school management. Through personal relations they are able to get leverage in school appointments and get involved in promotion processes. They are able to exert their influence by directly contributing to the school development fund or soliciting funds from other parents. They make their in-ways into principal and head teacher's offices to create close personal relations. They lobby for their children to get awards, diplomas and public service awards. Their ultimate goal is to make their child stand out with a distinctive record of achievements. Meanwhile, out of the school they create an environment for their children to wholly dedicate their time to study. Over the weekends, they hire expensive private tutors to coach their children.

Such behaviour, however, bears its own costs. Another respondent reported that "pig mums" allocated a substantial share of their family budgets to increase their children's chances to enter prestigious schools. As pig mums engage in networking and personal influence, children obtain advantages that are separate from their academic aptitude and independent of their KSAT (*su-neung*) performance. One student respondent (S) expressed the following: "As pig mums instigate excessive competition between students, a non-affiliated student would feel an immense pressure while comparing one's performance to a student from a pig mum's group. If a student relying on one's abilities does perform better than the pig mum's student then he or she is likely to face jealousy-spurred ostracism from the rest of the class, because the pig mums would use the opportunity to suppress other students' performance for the advantage of their children".

Students that prepare individually may feel negative peer-pressure and stand out in comparison to the “pig mum” groups. Another respondent (S) stated:

Pig mums, with their influence, would also coax underperforming students into a group, even though the likelihood for their improvement would be relatively low. Often, it would be difficult for them to leave the group, as the payments to the tutors would be made in advance for a period of six months, and without refunds. The academic performance of a student in such group becomes strongly entangled in a social interaction of the members of the group, creating a social, cocoon-like, sub-reality for the group, in which all members believe that academically they are the best.

Another respondent stated that a pig mum, as a social position, is a result of social interaction and not a self-chosen one. The respondent (S) said:

A mother with outstanding social skills and outgoing character whose motivation is driven by a possibility of future academic success of her child, is asked by other mothers (sometimes coalesced and persuaded through a praise and flattery) to lead a group of children. These mothers submit their children to the care and guidance of the pig mum. The pig mum is in complete charge of the study lives of the children in her group. She sets up a detailed schedule for the members of her group, including tutoring, individual and group counselling, commuting, food, rest. Meanwhile, the pig mum has to stay impartial and maintain a good balance in dedicating her time and care to all members of her group, not just to her own children.

The reported accounts show that private education participants actively choose various forms of private education, and pig mums are a unique form of education chosen by some parents. Some respondents indicated willingness to trade-off by relocating, to access private education and pig mums. This choice is highly unlikely among low-income households.

Theme 3. “Pig mums” and their social status.

One respondent (P) reported that it is in the pig mum’s interest to not attract attention until the day of the exams. Once the group under her *protection* has taken the *su-neung*, pig mums face several choices. A pig mum may cease to exist by simply disengaging from the network and dismantling the group. Alternatively, a pig mum may continue her activity if there is a sibling of a student that requires private education to enter university. Another respondent (P) noted that “the experience accumulated by a pig mum has a social, and often economic, value.” Some pig mums turn their activity into an open-to-public activity by officially registering a private school on their own. This allows them to get direct financial benefits by selling specialised academic knowledge and connections to a broader audience of students. According to one respondent (S), in a rare case, depending on her personal connections, a pig mum may continue to support her child at university level.

As a result, we found that currently the pig mum's phenomenon and the groups run by them have become socially accepted. Our results also indicate that education policy indirectly influences group (parents) behaviour.

Theme 4. Pig mums in private education market and education policy.

Other statements indicated that the impact of pig mum networks went beyond tailoring education processes for children; they also have an impact on the real estate market. For example, among other factors, they seem to contribute to an increased demand for *goshiwon* (small study studio-apartment complexes) in Gangnam area, which have risen in parallel to the pig mum phenomenon. These studios are ideal for private group lectures, as they provide affordability, good privacy and accessibility. The pig mums also affect demand and prices of private tutoring services as they directly compete with hagwons. The pig mum phenomenon reflects unusual social roles and creates networks that extend to the government, the private education sector, and even universities.

Another respondent (P) added nuances to the pig mum phenomenon by stating the following:

Pig mums are different from other mums ("helicopter mum", "soccer mum"). They have economic power. A membership in her group, which may cost several million won, translates into a substantial lump of money in her hands. A pig mum sets up a financial balance within the group and decides how much money will eventually go to private schools and independent private teachers. A pig mum has a massive bargaining power which represents a demand side and often drives tutoring prices for taught subjects on the private education market. In some cases, a pig mum rent a studio apartment in Gangnam district in order to benefit logistically by being close to all members of her network.

Many respondents stressed directly and indirectly that networking plays an essential role in the success of a pig mum. With her economic power and influence, "a pig mum bears a responsibility in front of the parents of the children in her group. In order to succeed she must be a prolific socialite, capable of maintaining constant flow of information between the parents, private teachers, owners of private academies and other key actors in the market. Networking is also critical to ensure good grades, and pave the way for the entry into a prestigious university" (P). Despite the differences in academic attainment between the students, through all available connections, pig mums may maximise the odds in favour of all members of her group. One respondent (P) called it a "cat and mouse" game between "the government on one side and pig mums along with hagwons in an attempt to clamp down on corruption in government district education offices, especially in Gangnam."

Other research supports negative effects of education policy on the private education. Lee et al. (2015) suggested that government policy is primarily responsible for current educational inequality in South Korea. The research reported a strong connection between the housing prices

in the area and ratio of students from the area who enter Seoul National and Yonsei University across the nation. Their research shows that Gangnam and Seocho districts stand at the top nationwide in producing entrants into the top universities, more than 9 per 10,000 people, whereas other provinces report less than 1 per 10,000 of population.

Conclusion

Although educators in other nations worry about losing out against Asian educational systems (Jensen, 2012), the authors contend that a broader study of these educational systems is needed. As discussed, how these systems developed differ and their policy implementations may have dire social and economic consequences. In particular, high stake testing has deep effects on educational values and outcomes (Madaus & Russell, 2010) and for South Korea we find negative social effects of education policy. Many Korean students pursue degrees as a social requirement or prerequisite to achieve a higher social status. The authors found that the government regulations and education policy has directly led to the pig mum phenomenon in the private education market, and it is a further example of the unintended consequences of government policy on private education. This new phenomenon further promotes educational inequality in society. To further our understanding of parenting and higher education, the authors explored the unique concept of the pig mum, a mother turned into a fulltime supervisor to a group of students which includes both her own children and children of her network. We argued that this is an outcome of values promoted by the educational policy of Korea's government.

Yet, as a pilot study this research has found the connection between the phenomena and the education policy implementation, however, with a small sample size, caution must be applied, as the findings might not be representative and the nature and complete understanding of this relation between the phenomena and policy would need to be addressed in future research. In spite of its limitations, the study certainly adds to our understanding of the pig mums' networks and its importance. Additionally, the current study may have broader implications for the education policy literature beyond Korean education. Our empirical analyses suggest that greater emphasis on achievement without any reflection on social processes may increase the negative tendencies and ultimately lead to the achievement gap between students due to financial discrimination between students and schools.

If the Korean education system remains assessment-oriented, any policy change is likely to have limited effect on academic and educational quality. Nation-wide tests are perceived to be the path for economic development for a whole generation, leaving students unable to score sufficiently high disadvantaged. At this point, there is a high likelihood of an increase in educational inequality (and even a drop in educational quality) as students with greater means, i.e. backed by parental financial support, pursue these degrees for the mere purpose of advancing their social status, which add little to the enhancement of national human capital overall.

Moreover, the government attempts to improve education system are often inefficient, as exemplified by the confusion created when attempting to improve English education (Byun et

al., 2011). The same is true for education policy as a whole and recent tweaking of policies, like standardised testing, may have large repercussions for society, including negative effects on student achievement at the tertiary level. Eventually, it may result in a loss of trust in government policy (O'Neill, 2002) and further issues like the pig mum phenomenon.

In fact, a lack of data and consultation between all key stakeholders limits higher education policy makers' ability to make good decisions. The government today seems disconnected from the public, often limiting a healthy debate and transparency. This raises questions of who is responsible for the education of children; will the government be able to provide public education for all, or does the responsibility shift towards individual families which will inevitably create an educationally hierarchical society. To combat these possibilities, we suggest that higher education managers improve data collection, diagnostic and observation techniques. We also suggest better communication and collaboration mechanisms in order to achieve an educational system that is available, accessible and beneficial to all students. Such an outcome is only possible in an environment of transparency, cooperation with all key parties and responsiveness where open dialogue is welcome. We hope this paper helps promote such a debate.

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