

# East Asian Educational Involution: A Comparative Study Based on Literature Review

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**Abstract:** This article primarily examines the manifestations and impacts of educational involution in selected Asian countries, proposing strategies to mitigate these effects. Using a regional comparative analysis approach, this study focuses on China, Japan, and South Korea — three representative East Asian nations — as its primary research subjects. For a comprehensive comparative analysis, India and Singapore are chosen as counterparts representing diverse Asian contexts. Through an in-depth examination of the contemporary educational landscape in these countries, the study elucidates the causes and characteristics of educational involution in East Asia, as well as its influence on national policies. By analyzing existing literature, this article develops an assessment coordinate graph to illustrate the dimensions of educational involution across Asia. As the concept of educational involution in the representative East Asian countries indicates the insufficient and uneven distribution of educational resources, it is divided into two different solvable pathways summarized as policy and capital. Since the specificity of all the selected countries' contexts is essential for practical articulation of educational involution, two value orientations, pluralism and meritocracy, are identified to qualitatively differentiate among the countries. The graphical representation serves to illustrate the current concept of educational involution, while the study proposes actionable solutions that can lead to more equitable and sustainable educational practices in East Asia.

**Keywords:** educational involution; rat race; literature review; comparative content analysis

## 1. Introduction

In the context of globalization, educational resources across nations have begun to traverse borders, leading to increasingly close interconnections among the education systems in the countries. The trend towards educational integration signifies an inexorable direction for future development. The advent of educational globalization necessitates a reevaluation and potential overhaul of traditional educational models, methodologies, and curricula, presenting both a challenge and an opportunity for transformative change in education [1].

### 1.1. Challenges in Chinese Education

Within this framework of opportunity, the Chinese local education sector confronts significant challenges owing to the influx of Western educational systems. The subordinate position of Chinese higher education on the global stage hampers its outward expansion capabilities. Concurrently, an internal phenomenon characterized by excessive refinement has given rise to what is termed as “Nei Juan” (educational involution) manifesting as a state of “no prosperity” and “no growth”. This concept of involution encapsulates limited external expansion of the system, intensification of complexity, and sluggish development trajectories.

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### *1.2. Educational Involution and Its Impact*

The notion of involution, while resonant with certain contemporary Chinese realities, delves into deeper layers when applied to education, prompting exploration into the intersections of political, economic, and pedagogical logics. It questions the extent to which these realms intersect and influence each other within the educational domain. “Nei Juan” is often associated with personality traits and societal culture, embodies psychological mechanisms such as imitation, distrust, and zero-sum mentality, while “involution” itself represents a process of internal intensification and complication under stringent external constraints. “Nei Juan”, therefore, can be interpreted as a dynamic yet non-progressive cycle of irrational competition, whereby from an internal standpoint, it fosters intense yet stagnant rivalries marked by alienation between individuals and the educational system. Consequently, the output of such a system exhibits a pattern of slow development, characterized by quantitative expansion devoid of qualitative leaps. In summary, educational involution epitomizes a paradoxical state of fierce internal competition that ultimately results in minimal advancement or transformation within the educational landscape [2].

### *1.3. Regional Analysis of Educational Involution*

There are 47 countries in Asia. According to the definition of educational involution, Asian countries with significant problems of educational phenomenon include China, Japan, South Korea, India, and Singapore. The involution of Chinese education exhibits a cyclical trend, perpetually repeating itself across successive cohorts. Japan, having experienced intense competition two decades ago, has since entered an extreme phase characterized by a “low desire society”. In response to the relentless competition and stress associated with college entrance examinations, the South Korean government has implemented a series of policies aimed at mitigating these issues. India’s dense population, scarce social resources, and entrenched caste system exacerbate the “competition for educational resources” among its citizens. Conversely, as the country with the highest GDP per capita in Asia, Singapore boasts robust educational development underpinned by elite education and governance systems. Industry, serving as the backbone of Singaporean economy, has maintained steady growth, contributing to the nation’s high happiness index. Consequently, many of the Singaporean government policies on education merit consideration and emulation. The characteristics of the innovation of ideological and Political education for college English course [3-5].

Ideological and political education for college English course faces challenges such as a disconnection between teaching content and ideological and political education, difficulties in the integration of moral education, and a lack of distinctive features. To address these issues, it is necessary to trace the essential attributes of ideological and political education for college English course. The innovation in ideological and political education for college English course proposed in this study is not an isolated ideological and political education system or English teaching model but rather a complete, feasible, and transferable teaching innovation path constructed through the deep integration of ideological and political education elements with college English teaching. This path possesses three major characteristics: value shaping, content integration, and innovation orientation.

### *1.4. Research Purposes*

Through a regional comparative analysis of the phenomena related to educational involution, we can discern both the commonalities and distinctions of this issue across various countries. By examining the characteristics of educational involution and the corresponding policies and measures implemented in representative Asian nations, we aim to formulate solutions to mitigate this challenge.

The objective of this study is to derive a viable and practical framework for addressing educational involution through an in-depth comparison of national contexts. Such cross-national analysis of educational practices and policies facilitates the identification of

strengths and weaknesses in existing systems, fosters the discovery of innovative approaches, and enables the proposal of effective strategies to combat educational involution.

## 2. Literature Review

### 2.1. Definition of the Phenomenon of Educational Involution

Educational involution in China, a term derived from the Chinese word "Nei Juan" (educational involution), has notably altered the application of the involution theory itself, exhibiting a trend toward continuous expansion and extension of the original concept, along with an evident derivation and emphasis on its connotation. The primary drivers behind educational involution in China encompass the competitive pressure for higher education, substantial family investments in education, and the unequal distribution of educational resources. However, the negative impacts of this phenomenon, including mental health issues and social inequality, have garnered widespread concern. Research indicates that educational involution at the basic education level originates from systemic stagnation and the lack of a holistic evaluation framework. Philosophical analyses tracing to Hegel's critique of "digital fetishism" reveal how involution embodies semantic anxiety within Chinese educational discourse. Contemporary studies further demonstrate that this phenomenon facilitates cyclical class mobility transitions, simultaneously functioning as a societal mechanism for both stratification and safeguarding [6].

### 2.2. Educational Involution in China and Other Countries

Educational involution in Japan is manifested in the relationship between higher education and industry. The supply of highly educated individuals within the integrated labor market of higher education surpasses demand, resulting in an increasing number of university graduates who are unable to secure employment commensurate with their educational qualifications [7].

In South Korea, educational involution generally pertains to the terms of "coolant" or "version". Literally, these terms denote academic pressure and fierce educational competition, like rat race. A hallmark of rat race in South Korea is the intensely competitive entrance examination system, which imposes significant academic stress on students and amplifies parental influence. To address this issue, researchers have proposed policy recommendations such as overhauling the educational evaluation system and expanding vocational education options. The elite education system known as "neungnyeokjuui" (also translated as the "doctrine of competence") advocated by South Korea originated from schools controlled by capitalist interests, thereby fostering educational competition that contravenes the essence of education [8].

Within the Indian discourse, educational involution is characterized as social stagnation, a concept akin to the Chinese notion of "Nei Juan". However, India primarily focuses on the development of science and technology as the main subject of discussion. Unlike other nations, India's challenge is not so much about the volume of education but rather the bottleneck encountered by developing countries [9].

In the context of an emphasis on academic performance, Singapore's societal structure seeks to enhance educational investments to cultivate more valuable human capital. Parents in Singapore engage in competitive environments, including non-academic competitions, with Singapore acting as the provider of such schemes. Confronted with the opportunities and challenges of globalization, Singapore has adeptly seized these prospects. The nation has focused its education reform efforts on addressing social concerns, teacher training, and government self-improvement, establishing a framework for long-term sustainable development [10].

From a comparative perspective, educational involution in China tends to transform the internal dynamics of the Chinese educational system, while Japanese educational involution leans towards the opposite extreme. Meanwhile, South Korean rat race is closely

linked to capitalism, and Indian educational involution stems from the social structure underpinned by religious ideology. Compared to the countries involved in the aforementioned education systems, Singapore exhibits a positive trend. The outward expansion of the education industry chain and comprehensive government governance have mitigated the negative impacts of intense educational competition within Singapore.

### 3. Findings and Discussion

#### 3.1. Educational Anxiety

Educational anxiety, characterized by high expectations for educational outcomes, imposes stringent conditions and a rigorous attitude towards each academic endeavor. This pressure can overwhelm and leave participants feeling helpless, often leading to feelings of guilt, pain, and depression. The primary catalyst for educational anxiety is academic stress. While Chinese middle school students generally experience a certain level of academic pressure, they have managed to maintain a satisfactory adaptation to school life and mental health. Factors such as gender, family economic status, and parents' educational background positively influence their adaptation to school life. Additionally, mental health partially mediates the relationship between academic stress and adaptation to school life [11,12].

According to data obtained from the National Health Insurance Corporation by members of the Education Committee of the National Assembly of South Korea, from 2019 to the first half of 2022, a total of approximately 209.565 million children and adolescents under the age of 18 received treatment for depression or anxiety. More than 60% of these cases were high school students, with over a quarter of middle school students affected by depression and anxiety. Among them, 46.5% of the students experienced depression due to academic pressures, while 12.5% were depressed because of issues related to appearance. Academic stress emerged as one of the most significant factors impacting the mental health of Korean adolescents, often accompanied by a heightened risk of suicide [13].

A comparative analysis of demographic and psychological characteristics revealed that female adolescents, high school students, adolescents from single-parent families, those with low socioeconomic status, and other minority groups exhibited significantly higher levels of planned suicide and attempted suicide. Education-induced social anxiety has led to various issues among Korean students, including reduced subjective sleep satisfaction, poor self-evaluation of health, diminished subjective well-being, feelings of loneliness, anxiety, stress, and excessive reliance on smartphones. When developing prevention and remediation plans for college students' smartphone dependency and associated psychological and emotional problems, such as academic and job pressures and depressive symptoms, these factors should be taken into account [14,15].

Addressing these issues requires a comprehensive approach considering psychological and emotional factors like academic pressure, job stress, and depressive symptoms in prevention and intervention strategies. These may include school-based mental health programs, parental guidance initiatives, and policy reforms to promote a balanced educational environment.

#### 3.2. "De-Involution" and "Low Desire Society"

Chinese "involution" necessitates a multifaceted approach to overcome systemic challenges. Strengthening oversight of off-campus training institutions, augmenting the provision of high-caliber educational resources, ensuring equitable distribution, fostering proper educational values, establishing a comprehensive and diverse evaluation system, and cultivating a conducive educational ecosystem are imperative. Since 2017, China's internet culture has witnessed phenomena akin to "mourning culture" and "Buddhist culture", with "lying down and rest" (tang ping) embodying a transformative response to

the quandaries of “mourning” and “involution” to some extent. Amidst digital technological advancements, the ultimate resolution of involution is envisioned through artificial intelligence serving humanity and engendering a new digital civilization, with human “lying down and rest” signifying ultimate autonomy.

Involution entrapment signifies that entities or organizations adhere rigidly to a developmental paradigm upon reaching a certain maturity, precluding external resource infusion, resulting in meticulous internal growth. Upon recognizing imminent immersion in the involution maelstrom, the youth initiated the incorporation of external resources and identities, leveraged flexible employment modalities and empowerment strategies, and adeptly navigated regulatory frameworks in pursuit of progress. This adaptability and circuitous navigation constitute integral components of China’s youth “involution free” strategy.

The Korean government, addressing heightened educational anxiety and exam-centric education, has implemented a series of national curriculum reforms tailored to primary and secondary schools. Confronted with an imperfect educational milieu, South Korea embarked on an urgent national curriculum overhaul grounded in neoliberal principles, unfortunately precipitating educator fatigue and disarray. In Japan, the aftermath of the bubble economy manifested in deleterious internal competition, resource scarcity, and employment constraints, giving rise to “home” and “mourning” subcultures following societal mindset shifts. Beset by academic, career, marital, and romantic pressures, Japanese youth exhibiting negative mentalities harbor apprehension towards adversity, often feeling bewildered under duress. A segment of this demographic succumbs to gradual decline, while others opt for passive evasion, cloaking their withdrawal behind a facade of superficial optimism masking underlying pessimism. As quintessential members of the “low desire group”, Japanese youth ostensibly adopt an indifferent or self-deprecatory demeanor as a veil for their inherent escapist tendencies.

### *3.3. The Regional Challenge in Educational Involution*

The extant literature offers academic explanations and theoretical foundations for the phenomenon of educational involution. However, a notable gap remains in the scholarly discourse concerning internal competition without substantive growth across diverse nations; existing studies are either absent or offer merely descriptive summaries. Although certain Eastern Asian countries play a pivotal role as opportunists and risk-takers in the process of globalization, there is a paucity of academic work that examines the interrelations among these nations with regard to shared educational challenges, including their similarities and differences.

In tackling the detrimental effects arising from educational involution, much of the literature focuses on documenting the manifestations and outcomes of locally contextualized debates under varying regulatory frameworks. Notably absent is a comprehensive “involution-free” blueprint that holistically considers the socio-systemic dimensions. This study sets out to explore the fundamental nature of educational involution, examining the relevant theoretical landscapes pertaining to this phenomenon in selected representative Asian countries. By meticulously analyzing real-world case studies, it endeavors to proffer a systematic resolution to the conundrum, thereby contributing a nuanced understanding to the discourse on overcoming rat race tendencies within the educational sphere.

## **4. Research Methods and Educational Systems**

### *4.1. Ability and Effort*

The objective is to delineate the disparities and convergences in how educational involution manifests across these nations. To ensure a rigorous and balanced examination, the methodology of the study integrates both quantitative and qualitative research approaches. Qualitative methods should contextualize the data, followed by quantitative

analyses to enhance objectivity, and subsequently synthesize the findings. This multifaceted approach aims to offer a comprehensive understanding of educational involution within the selected Asian contexts.

#### *4.2. Content Analysis*

Content analysis typically encompasses three key phases: selection, classification, and statistical analysis. In the present study, three methodological approaches are employed to examine media-related content pertaining to the focal theme. These include documenting verbal, pictorial, and video materials along with their dissemination patterns within a specified timeframe. The investigation compares recurring themes such as rat race across different time periods as reported by the same media sources. Additionally, the research analyzes reporting styles and content regarding interconnected concepts including "involution in education", "irrational competition in education", and "rat race" across various media platforms during the same period. This dual approach aims to identify both similarities and differences in media portrayals, enhancing understanding of these educational phenomena.

#### *4.3. The Trade-off between Test-Taking and Literacy*

The educational involution dilemma in China lies in the imbalance between test-taking education and literacy-based education. Test-taking education predominantly refers to an educational paradigm that targets exam performance, emphasizing grades and scores at the expense of individual student development. On the other hand, literacy-based education advocates for holistic development, focusing not only on academic achievements but also on moral character, innovation capabilities, and practical skills [16].

In China, due to the existence of high-stakes examinations such as the National College Entrance Examination (NCEE) and the uneven distribution of educational resources, test-taking education has become dominant. Students and parents commonly believe that high scores are essential for securing better educational opportunities and prospects. The excessive focus on academic performance by both parents and society impedes the implementation of literacy-based education, as there is a fear that deviating from the test-oriented track may place students at a disadvantage in future academic competitions.

Students striving for higher scores often sacrifice their leisure time and opportunities for personal interest development, which contradicts the principles of literacy-based education that promote all-around development. The educational involution phenomenon in China varies according to different social contexts. For urban families, literacy-based education and test-taking education create a dual burden through a single-score evaluation system. For rural education, the scarcity of foundational educational resources exacerbates the gap between social classes, requiring rural children to expend considerable effort to achieve relatively equal outcomes.

To address these issues, the Chinese government has adopted the principle of "cultivating virtue and nurturing talent" as the focal point of educational reform, emphasizing that the essence of education is to foster individuals rather than to screen products. In pursuit of this noble educational ideal, the Chinese government is making concerted efforts to implement comprehensive reforms.

### **5. Educational Inequality and Meritocracy**

#### *5.1. Meritocracy and Its Challenges in Education*

The education systems of South Korea and India both adhere to the principle of meritocracy, which advocates for determining educational outcomes based on an individual's abilities and efforts, thereby affecting their future social status and resource allocation. Although this concept appears fair and reasonable in theory, it faces numerous challenges and criticisms in practice.

Firstly, the definition of “ability” within meritocratic ideology is ambiguous. Some societies may place greater emphasis on technical skills, while others may value interpersonal and social skills more highly.

Secondly, meritocracy tends to overlook non-cognitive traits. Emotional intelligence and social skills are equally crucial for career success. However, meritocracy often emphasizes cognitive abilities (such as IQ and academic performance) too much, neglecting the importance of non-cognitive traits (such as emotional intelligence, social skills, resilience). Research has shown that stereotypes about women in mathematics and science can affect their performance. This phenomenon indicates that societal and cultural expectations can become self-fulfilling prophecies. If a society believes that certain groups are inherently more capable in specific areas, these expectations will influence the performance of those groups. Additionally, an excessive focus on individual responsibility and ability can lead to the neglect of structural issues in society, potentially resulting in moral hazards. For example, welfare policies may be opposed because they are seen as rewarding those who are not “hardworking enough” [17].

Notably, meritocracy can cause structural inequality and unequal resource distribution. Even with the same starting point, individuals from different backgrounds have varying resources. This means that even in a seemingly fair competitive environment, those with more resources and support still hold advantages. In standardized tests, family background and social capital significantly influence scores. Moreover, during job searches, getting positions through internal referrals is common, which might not be based purely on ability. Informal social networks (such as familial relationships, alumni connections) still play a significant role in real life. These connections may provide implicit advantages to some individuals, making the so-called “fair competition” unfair [18].

Studies demonstrate that students from affluent backgrounds show significantly higher admission rates to elite universities, even when their academic achievements don't surpass those from less privileged families. While meritocratic systems theoretically reward individual effort, structural inequalities (including racial, gender, and class disparities) systematically disadvantage certain groups. For example, children from impoverished households often cannot realize their full academic potential due to limited access to quality educational resources. This resource disparity perpetuates a cyclical pattern where disadvantaged families become increasingly trapped in educational involution, fundamentally undermining equitable outcomes [19].

### *5.2. Singaporean Strategy: Communitarianism and Pluralism*

The Singaporean government provides world-class higher education, breaking away from the resource scarcity paradigm common in East Asia, while preserving local culture and integrating into Western systems. The educational involution in Singapore fosters a sense of communitarianism among its citizens and the government. Singapore emphasizes that individual success and happiness cannot be separated from the social and cultural contexts in which they occur. It posits that personal identity and achievements are deeply rooted in community ties. Individual values and objectives are largely shaped by the communities to which they belong. Community service, volunteer work, and mutual aid organizations are integral parts of Singapore's foundational education.

At the higher education level, Singapore advocates that society is composed of multiple distinct groups, each with its own unique values and interests. By positioning education as a product to attract educational investment from overseas families, Singapore stresses inclusivity of diversity and respect for differences, encouraging dialogue and cooperation among different groups. Multicultural education, the celebration of diverse religious festivals, and other aspects of its educational system reflect pluralism. These elements contribute to internal cohesion and external systemic support, mitigating the negative impacts of educational involution.

Through these measures, Singapore seeks to balance internal unity with engagement with external systems, thereby addressing the adverse effects that educational involution might otherwise bring about [20].

## **6. The Depiction of Eastern Asian Educational Involution**

In recent years, China has dedicated efforts to consolidating and deepening the results of the "double reduction" policy, focusing on effectively alleviating the heavy homework burden and extracurricular tutoring load on students during the compulsory education stage. Efforts include enhancing classroom teaching quality, improving after-school service levels, and strengthening supervision of extracurricular tutoring. Guided by policies, China aims to return education to its fundamental role of nurturing individuals.

South Korea promotes multicultural education, respecting and accommodating students from diverse cultural backgrounds, fostering diversity and inclusivity within schools. Additionally, it enhances educational support for economically disadvantaged families, disabled students, and other vulnerable groups, ensuring equitable educational opportunities for every child. The South Korean government is committed to mitigating structural inequalities brought about by meritocracy and paying attention to students' physical and mental well-being. Curriculum design increasingly emphasizes personalized needs, offering more diversified learning pathways and experiences tailored to different learning styles and interests.

Facing the dual impact of low birth rates and the COVID-19 pandemic, Japan's higher education sector confronts issues such as scattered student enrollment and the rise of remote education. To address these challenges, the Japanese government has set three core goals: improving education quality, providing appropriately scaled higher education opportunities, and ensuring equal access to education. According to the Fourth Basic Plan for the Promotion of Education, Japan plans to attract 400,000 international students by 2033, aiming to draw and nurture more talents through enhancing education quality and internationalization.

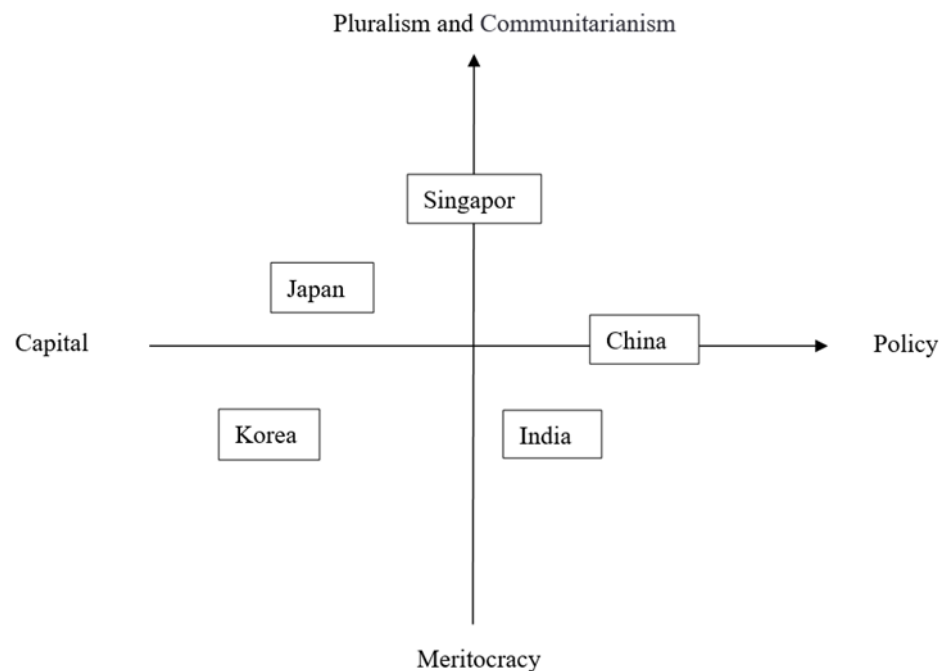
The National Education Policy (NEP) 2024 is a detailed framework for transformative changes in India's education sector, focusing on developing critical thinking, holistic growth, and a global outlook among students. This policy marks a pivotal step in India's national educational trajectory to meet dynamic contemporary requirements. As a nation where political foundations are deeply intertwined with religious backgrounds, India emphasizes fairness and accessibility in education, alleviating educational involution through improvements in basic education quality.

Singapore maintains international competitiveness in higher education, serving as a foundation for national education. From the year onwards, all scored assessments in Singapore are abolished, with teachers assessing student progress through assignments, classroom activities, and ungraded quizzes. This measure aims to reduce examination pressure and avoid the harms associated with educational involution, allowing students to rediscover the joy of learning.

In summary, the themes presented in the literature and texts exhibit unique relationships. Among them, the concept of meritocracy stands in contrast to pluralism and communitarianism, representing two extremes of race in South Korea and Japan respectively. Furthermore, within the policies adopted by various countries, there is a dichotomy between those guided by capital and free markets and those driven by governmental governance. The current state of educational involution in five representative Asian countries can be mapped onto four quadrants of a coordinate axis (as shown in the following Figure 1). Chinese situation, based on multicultural backgrounds, is guided by state politics to minimize the detrimental effects of capital on education. Singapore balances political and free-market considerations, prioritizing communitarianism and maximizing collective national benefits. Both South Korea and India exhibit strong meritocratic tendencies, yet their policy solutions differ fundamentally. Japan, unlike the other four Asian countries,



does not present a typical case of educational involution; instead, it serves as a counterexample, representing an organic integration of coexistence and capitalism [21-23].



**Figure 1.** The Depiction of Eastern Asian Educational Involution.

## 7. Conclusion and Implication

Comparative analysis shows varied manifestations of Educational involution, reflecting distinct national challenges and responses. Educational involution reflects a complex interplay of socio-economic and cultural dynamics, manifesting uniquely across different contexts. Addressing this phenomenon requires tailored strategies that consider the specific challenges and opportunities present in each country's educational landscape. In China, the phenomenon, rooted in competitive pressures for higher education and unequal resource distribution, has expanded the original concept of involution, emphasizing its implications on class mobility and social screening. Japan experiences involution through an oversupply of highly educated individuals relative to labor market demand, leading to underemployment. South Korea's intense entrance examination system creates significant academic stress, prompting policy suggestions such as reforms in educational evaluation and increased vocational options. In India, educational involution is linked to social stagnation and developmental bottlenecks, particularly in the context of science and technology. Singapore, despite its competitive academic environment, demonstrates a positive trend through strategic educational investments and reforms aimed at sustainable development.

The trade-off between test-taking and literacy in China highlights the tension within educational systems that prioritize standardized testing over broader goals. Meritocracy in South Korea and India promises equality based on individual abilities and efforts but faces challenges such as ambiguous "ability" definitions, neglect of non-cognitive traits like emotional intelligence, and structural inequalities. However, Singapore blends communitarianism with pluralism, fostering community and embracing multiculturalism to balance internal unity and global engagement, aiming to mitigate effects of educational involution and ensure reforms contribute to both cohesion and external support.

For further research, ethnographic research is incorporated to provide grounded, real-world insights, with the outcomes of ethnographic reports serving as a tangible foundation about educational involution and rat race. Meanwhile, bibliometrics takes various external characteristics of scientific and technological documents as the research object, and uses mathematical and statistical methods to describe, evaluate and predict the current situation and development trend of science and technology. The literature reflects the perspective of scholars in this country on educational involution and the guidance of research results. After the collation of bibliometric data is completed, a visual analysis of the relevant national literature thesaurus will be conducted to demonstrate the conclusions drawn by the content analysis method.

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