

Vocational Education Development Trajectory in Russia and China

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Abstract

Russia and China are vast, non-homogeneous countries rich in history. Considering the similarities and differences in their development, it is interesting to see how they, with their hyperdiversity, respond to Western influences across time. The governments of both Russia and China today see the strategic importance of cooperation. Both countries prioritize education development for economic development in light of an increasingly changing and automated world, and are working towards vocational education development. This paper examines initiatives in vocational education development, reflects on unique philosophies and understanding of Russia and China in regards to vocational education, and illustrates their experiences with ‘dual system’ and ‘World Skills International’. By comparing Russia and China, it is evident that the Western culture, the Russian culture, and the Chinese culture are hyper diverse, and thus the development of vocational education follows a unique path. The study aspires to promote awareness, reflection, and further discussion between other countries across the globe in regards to their experiences in education development. This can promote learning from the experience of these two hyperdiverse countries and start a fresh and enriching conversation about educational reform and a better shared future.

Keywords: BRICS, China, Russia, vocational education and training, Western influence, World Skills International, dual model

Introduction: Hyperdiversity between Russia and China

To initiate a discussion on vocational education development in Russia and China, it is essential to review the countries’ unique philosophies a priori and reflect on the role of unified examinations in shaping the education trajectory, as well as the meaning of vocational education in both contexts.

In the Chinese context, most students and parents regard university education as more worthy than vocational education. In a Confucian society, most students and parents would opt for university education, rather than vocational education (Chen, 1990) as becoming a laborer or a technician would only lead to a lower social status, while, getting access to university education is expected to change one’s fate in life and lead to a higher social status afterwards. According to Confucian ethics and philosophies,

passing a unified examination is a crucial step in achieving higher education and can significantly enhance one's upward mobility in the hierarchical national structure (Karnauch & Hu, 2011), thereby negatively impacting the traditional image of pursuing an alternative education course.

In Russia, the belief in 'maybe' and the attitude of 'where will fate take us' are deeply rooted in most people (Kiyashenko, 1998) and impact education choices depending on the economic situation at the time. Such a philosophy and culture can be reflected in the dynamics of participation in the *Ediny Gosydarstvenny Examen* or EGE (Unified Governmental Examination). Considering the current state of affairs, it seems apparent that many students in Russia currently do not value EGE as strongly and increasingly opt for a vocational education track rather than chase a university education. For instance, in 2010, 25.4% of students opted for exiting school from the ninth grade and into VET, while in 2020, the number was 38% (Maltseva & Shabalin, 2021). The vocational education path has become a faster way out of the EGE and into the labor market, as vocational education participants can earn more quickly, and it alleviates financial pressure off their parents as well.

It is worth highlighting that VET (Vocational Education and Training) has a slightly different meaning in Russia and China. Chen et al. (2021) note that recently developed methodological recommendations for actualization of educational standards for VET competence are defined as the abilities to apply knowledge, skills, and practical experience for successful activities in a specific area. On the other hand, in China, policy documents describe VET as competence (to be), usually understood as professional competencies, which are referred to as the integration of knowledge, skills, attitudes, and physical abilities necessary to perform professional activities (Pang, 2010). The similarity of knowledge and skills as prerequisites for the competence of vocational education can be seen. Yet, in Russia, the focus seems more on practical skills, while in China, more on attitude and physical ability. Therefore, considering vocational education through the Russian and Chinese prisms may help to enrich the image and status of vocational education in both countries and beyond, and the associated experience of the participants.

Change in market demands

Taking the rapid development of unmanned aerial vehicles as an example, the reform of vocational education should keep abreast of the new and great demands in technical and skilled labor. Because of the rapid development of the drone industry, a global trend towards simplicity, unification, and specialization in new technical skills can be observed in both countries.

In 2017, the Ministry of Education in China carried out a comprehensive review of the existing contexts and challenges and issued the *Professional Directory of Vocational Education*. The document calls for strengthening the construction of the national teaching standards system for vocational education, implementing the requirements for the dynamic updating of vocational education professionals, and promoting professional standards and digital transformation (Ministry of Education, PRC, 2020).

Similarly, Russia has attempted to unify and simplify the VET educational structure. According to the Russian news, as claimed by Glushko, there are 500 professions, and the goal is to reduce them by half shortly (Kolesnikova, 2021). In August 2019, the Minister of Education, Olga Vasilieva, already announced the liquidation of about 100

(disappearing or unpopular) professions and specialties from VET programs from the year 2020 onwards (Ovsyannikov, 2019). Kolesnikova (2021) further suggests the direction of development for dynamic specialties (e.g., information technology) over static professions (e.g., welder) as well as a trend towards grouping specialties into one category with wider skill sets and with similar responsibilities. Some specialties in the VET professions may be questioned in relevance and replaced by more necessary professions, which are new demands in the market.

New initiatives

The governments of both China and Russia have initiated new measures that highlight the need to reform VET in both countries.

In China, the Ministry of Education and the Ministry of Human Resources and Social Security announced the *Vocational Education Quality Improvement Action Plan (2020–2023)* (Ministry of Education, PRC, 2020), which contains broad goals for China in reforming the vocational education sector (as part of the *Implementation Plan on National Vocational Education Reform*, 2019). The overarching goals are: (i) to establish a formal system for vocational education development in China and operationalize a national ‘credit bank’; (ii) to establish a chain of responsibility for vocational education involving government, industry and institutions; (iii) to expand the scale of vocational education equivalent to ‘regular education’ and produce many high-quality ‘technical talents’; (iv) to enhance the vocational education standards system at national, provincial and institutional level and deepen the reform of teaching and learning resources and methods; (v) to lift the overall quality of vocational education and its graduates; (vi) to improve graduate employability; and (vii) to lift the appeal of vocational education to support local economic and social development and major national strategies.

The Government of the Russian Federation (2015) put forth a *Series of Measures to Improve the System of Vocational Education for 2015–2020*, which suggests a focus on further development of vocational education as a track. Moreover, President Putin has been persistently developing the National Project (2019–2024) with a focus on education, which aims to provide all people with opportunities for self-realization and the development of talents for the whole country (Ministry of Education, Russian Federation, 2022). The President looks forward to enabling more workshops in colleges and technical schools with modern equipment and technology, and multiplying centers in various regions for the vocational guidance of school children, advanced vocational training, and the retraining of personnel in highly demanded professions. Thus, the Russian plan seeks to significantly increase qualified teachers and studios by 2024 and aspires to make the *Federal Governmental Educational Standards* a broad framework (Russian Statistical Yearbook, 2022), which is supposed to allow a quicker response to market needs and counter challenges. By focusing on developing shorter and intensive programs for students is expected to allow students of the vocational education track to enter the market equipped with relevant knowledge, skills, and techniques.

The ‘dual system’ and ‘World Skills International’

In the discussion of vocational education, it is essential to consider the ‘dual system’ and ‘World Skills International’.

According to European Entrepreneurs CEA-PME (2022), the term ‘dual system’ refers to the approach used primarily in Germany and Austria for professional training that focuses mainly on practical professional work experience in a company, with additional theoretical and general college parts to complete the training curriculum. A ‘dual system’ in vocational training combines college and work experience to fill the gap between colleges and companies and, in turn, reduce youth unemployment. Russia and China have always looked up to the ‘dual system’ of the West, which was successfully developed in Germany, Austria, and Switzerland, and which helped these countries to come out with the best results during the economic crisis of 2008 to 2012. However, China and Russia face some challenges that obstruct the implementation of the ‘dual system’ in their settings, respectively.

Schmidtke and Chen (2012) review the historical development of the Chinese philosophy of vocational education and argue that the development and reform of vocational education in China need to maintain a Confucian framework with unique Chinese characteristics, rather than transplanting models and frameworks from the West. Xu (2019) expands that China’s socialist market economy, mode of operation, and established industrial development have incurred an ‘incongruent phenomenon’. There is not much interest in and enthusiasm for most enterprises to participate in VET. Furthermore, most students and parents regard VET as secondary to university education. These are major hurdles to be overcome if a ‘dual system’ of VET is to be implemented effectively in China.

Russia has had a relatively good experience with the adoption of the ‘dual model’ in various regions, which started in Kaluga 2010 by Volkswagen Group Rus, later also applied in the Sverdlov, Tatar, Krasnoyarsk, Perm, Belgorod, Volgograd, Moscow, Nijegorod, Samar, Tambov, Ulyanov and Yaroslav regions (Dudyrev et al., 2018). However, currently international relationship settings are changed, and there are distinctive features in Russia which further impact the applicability of the ‘dual model’ (Dudyrev et al., 2019). First, Russian organizations tend to have a shorter planning horizon and portfolio of orders; therefore, they are not ready for long-term cooperation with open-source organizations, which normally requires visions of five to ten years ahead. Second, conditions of the Russian labor market, with its staff turnover rate on the higher end, cannot guarantee the loyalty of trained employees to the same extent, which generally keeps firms from participating in educational projects and taking on financial obligations related to teaching VET students.

If to consider ‘dual model’ as a crucial trend of vocational education in the past, it is equally important to consider ‘World Skills’ movement as the key shaper of vocational education of the present. According to the official website (WorldSkills, n.d.), it is a current association of 89 members across the world. On the website, it 1) highlights the role of skills in economic progress, as it is “Skills (which) create opportunities and connect societies. They are the foundation of economic progress” and states its aim to “inspire and support 100 million young people to get ahead with skills by 2030”. It is essential to notice on the website that above the list of technical occupations it highlights skills: “being creative, complex problems, craftsmanship, fixing things, helping people, making things, things that move, using computers, using tools, working as a team, working outdoors”, which helps to reach the youth in a simplified and direct way by focusing on skills and value it can bring, rather than professions with associated image.

‘World Skills’ organizes regular international competitions for professional excellence, where young workers and professionals can declare themselves and demonstrate their professional skills, thereby creating and enhancing associations and confidence links. Both Russia and China have joined it and have various experiences with ‘World Skills’ participation and competition. Russia hosted it in Kazan (2019), and China planned to host it in Shanghai in 2022, but it has currently rescheduled due to the pandemic situation to 2026. Considering the hyperdiversified culture, each country looks up to ‘World Skills’ in a different way, interprets, and adapts it to fit their contexts accordingly.

Conclusion

Russia and China should proceed to develop their unique education systems, which continuously address their national values as well as prepare students for an increasingly digitalized and changing world. There have been far-reaching events that have had an impact on most countries in the world, such as globalization falling apart, the present Russia-Ukraine war and growing sanctions, the continuous China-United States trade war, the aftermath of the COVID-19 pandemic, and the digitalization of the world. These are likely to split the world into different zones of influence and control and, in turn, force the rapid transformation of the current model of education systems, especially those of Russia and China. Therefore, the education, including the vocational education stream, needs to be continuously modernized and kept relevant to the demand and supply of each country accordingly.

Call for educational transformation in Russia

In Russia, regarding the economic situation, in its report *Twelve Solutions for New Education*, the Centre for Strategic Research (2018) claims that the formal educational potential of the Russian population is not fully capitalized. Compared to other countries that have both higher and secondary vocational education, Russia has reflected the lowest per capita GDP and insufficient dynamics of labor productivity. The Russian Federation was ranked fourth in the world in terms of the volume of human capital, but only 42nd in terms of the real use of skills in work and involvement in continuing education. Hence, determining how to gain human capital extensively and effectively is an important agenda that controls the direction of reform in the vocational education sector.

To address drastic social and economic changes, Russia should call for immediate reaction and stabilization mechanisms in its economy, especially through education. Russia’s withdrawal from the Bologna Agreement, in May 2022, which it was part of since 2003, is a significant event that causes a range of drastic changes (Ria News, 2022). The Bologna Agreement allowed an equal status of Russian diplomas when compared to the diplomas of the other Bologna participants, and so, the mobility of students among various universities in different European countries was made possible. The Russian deputy minister Kucherenko claims that countries such as China and India have never been part of the Bologna Agreement, but this has not stopped them from recognizing education diplomas that have been completed in other countries and from continuously developing their education systems (Voropaeva, 2022). On May 24, 2022, the Minister of Education and Science, Valery Falcov, announced, “The future depends on our own unique education system and its core should be the interests of the national economy and

the maximum opportunity space for each student” (Voropaeva, 2022). This proposal is bringing in an idea of student needs and is reviving an interest in considering national needs for a suitable education system in Russia.

Beleeva (2022) expands on various factors leading to the decrease of the prestige of and general interest in higher education in Russia, which could find resonance in Chinese reality as well. The inhibiting factors include the following: (i) an uncertainty in career choice among school graduates; (ii) the growing need for teenagers to quickly become financially independent, especially in the current epoch of easy earning through TikTok video streaming; (iii) the fall in spending power among the population due to the COVID-19 pandemic and sanctions; (iv) the possibility of self-actualization and the realization of one’s potential without higher education, for example, in the information technology or blogger industry, where people who do not have diplomas can earn high incomes; (v) the depreciation of the social status of being a professional, as perceived by the public; (vi) the possibility of being admitted to higher education via the vocational education track; and (vii) the view that having received a higher education certificate brings more of a loss than a gain in terms of high investment in the cost of education and low returns in the career prospect. Therefore, it is important to be aware of the trend as well as the reasoning behind to strengthen the higher and vocational education offers, and help the students choose the track sensibly.

Call for education transformation in China

In recent years, China was known as one of the countries that had the highest GDP and consumer power before the COVID-19 pandemic. Even after the outburst, China is still maintaining a relatively positive and stable position in the global arena. As the Ministry of Education of the PRC (2019) mentions, this could not have been achieved without millions of qualified laborers. Wu and Ye (2010) assert that the target of technical and vocational education is to cultivate comprehensively developed personnel in line with social requirements, that is, to bring in vocational education as one of the paths to allow everyone to succeed.

According to the *Highlights of the Ministry of Education’s Work in 2021* (Ministry of Education, PRC, 2021), its 12th education goal for the next few years is to construct a vocational education system with Chinese characteristics in the new era. The main objective of this policy is to establish and improve a modern vocational education system with vertical and horizontal integration as the core and to promote vocational education to ‘grow into’ economy, ‘merge into’ life, ‘integrate into’ culture, ‘penetrate into’ people’s hearts and ‘enter’ the agenda (Ibid.). The careful choice of verbs in the text highlights the action strength necessary to make vocational education a valid education option. Shi (2013) mentioned that the curriculum contents at many colleges do not match students’ development needs and, in turn, affect the quality of their development of talent and skills. Thus, to penetrate the heart and merge into life, future endeavors should consider ways for vocational education to address students’ needs by acknowledging ‘customer’ requirements and enabling a quality experience via strengthening distinguishing features of vocational education.

Jiang (2009) recommends that career education occurs in the middle school, so that middle school graduates can choose what best suits them – academic or vocational education, Gao Kao or an alternative – which will, in turn, allow them to consciously, voluntarily and independently accept what is most suitable for their own education:

higher or vocational. Shi (2013) further argues that the starting points for the reform of the vocational education curriculum in China are (i) stimulating students' interest in learning and making their studies interesting and (ii) making the learnt knowledge and skills useful, not only to students' employment but also to the sustainable development of their lives and careers. This evokes the importance of well-rounded education because only when education is relevant to students' unique needs and ways can it be more enjoyable, naturally accepted, and later applied in the real world.

Hindsight

Russia and China are neighboring countries that cannot ignore each other; in fact, they can use the opportunity of their proximity and hyperdiversity to learn from each other. Both countries agreed on (i) cultural cooperation (dated 18 December 1992), (ii) mutual recognition of academic degrees (dated 26 June 1995), (iii) promoting a study of the Russian language in China and Chinese in Russia (dated 3 November 2005) and deep cooperation in the field of education between the Ministry of Education and Science of Russia and the Ministry of Education of China (dated 9 November 2006) (Efremova, 2017). Moreover, the two countries have signed a *Joint Statement of the Russian Federation and the People's Republic of China on the International Relations Entering a New Era and the Global Sustainable Development* (CASI [Transl.], 2022), which looks into beneficial ways of cooperation.

Russian-Chinese collaboration has been working for years to motivate mutual benefits, recognize academic qualifications, allow language learning, and enhance the mobility of financial and human resources between the two countries. However, a collaborative development in reconsidering state examinations and enriching the vocational education track has not been explored sufficiently.

This paper has explored diverse experiences of Russia and China in educational reform and development with a focus on VET. We hope to invite other countries across the globe to review their experiences in their sectors, learn from the experiences of these two countries, and start a fresh conversation on education collaboration and reform. In light of the changing world dynamics and the static countries' values, there will surely be many great challenges and opportunities ahead for joint endeavors among the BRICS member states and beyond. There is no single country that can solve the problems alone, but we should work together to enhance the possibilities of finding practical measures and solutions for *a better shared world*.

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