Leadership Challenges and Roles of School Superintendents: A Comparative Study on China and the United States

Robert Przybylski, Ph.D. (corresponding author)
Nanjing Normal University

Xuejun Chen, Ph.D.
Nanjing Normal University

Liwen Hu
Nari Group Corporation

This conceptual paper using published empirical articles investigated the leadership challenges and roles performed by superintendents in the countries of China and the United States (U.S.). Additionally, a comprehensive search on the educational contexts for both countries was undertaken. The findings assisted in determining similarities and differences in the above-mentioned aspects. Findings suggest that superintendents hold ideas and go about their duties significantly shaped by leadership traditions, as well as, social, economic, and cultural contexts. Therefore, in the age of globalization, with the sharing of ideas becoming more prevalent, attention and understanding to the constructive nature of these contexts is needed.

Keywords: Superintendents; Leadership; School Reform; China; United States

For superintendents it seems, no matter the district, city, province/state, or country are confronting what seems an endless list challenges. At the same time, they are also expected to perform numerous roles.

According to this review of research regarding superintendents’ leadership challenges and roles in China and the U.S. written over the last 20 years, superintendents in both countries share many similarities and, as well, several differences. Furthermore, the educational contexts that superintendents operate under in their respective countries inform why particular practices are existent.

From the thorough review of literature, three common themes emerged and thus led to the following research questions:

1) What are the educational contexts for superintendents in China and the U.S.?
2) What are the leadership challenges for superintendents in China and the U.S.?
3) What are the leadership roles for superintendents in China and the U.S.?
Review Method

To ensure that this review will add to present research and discussion on the topic of superintendent leadership roles in China and the U.S. explicit methods were used. They were as follows:

1) an exhaustive search for relevant literature;
2) the use of an inclusion criteria;
3) systematic coding;
4) classifying and synthesizing study results.

Review Results

Six major peer reviewed journals in educational administration, Scholar’s Portal, and Google were scanned for empirical studies published in the last 25 years. This resulted in 75 initial compositions meeting the criteria for this review, that is, the writings explored school superintendents, educational policymakers (i.e., municipal/county leaders), and principal-superintendent collaborations. After further review, 63 texts were chosen for the reason that they would assist in answering one or more of the research questions guiding this study. The compilation is as follows: 49 published articles, 5 books, 2 conference papers, 1 newspaper article, 1 report, 1 unpublished article, 3 dissertation/thesis and 1 webpage. The published and unpublished articles, conference papers and dissertation used for this review utilized five different research designs: 15 qualitative, 12 quantitative, 3 mixed, 1 meta-analysis, and 13 conceptual.

The majority of the collection is comprised of findings associated with the United States. The U.S. research was almost evenly distributed between qualitative and quantitative studies with one meta-analysis involving a resounding total of 4,434 superintendent ratings and 3.4 million student achievement scores.

Table 1: Summary of articles on the changing nature of educational leadership in China.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Main Research Focus</th>
<th>Research Methods</th>
<th>Antecedents</th>
<th>Leadership Roles/Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chen (2015)</td>
<td>To share individual experiences of female superintendents and their relationships with principals.</td>
<td>Essay</td>
<td>The number of female superintendents is increasing.</td>
<td>Female superintendents tend to be good servant leaders and respects principals which builds trust.</td>
</tr>
<tr>
<td>Cheng (2002)</td>
<td>To provide a common ground for sharing issues and concerns for educational reforms and to close the gap between research and policy.</td>
<td>Conceptual</td>
<td>Despite reform policies to facilitate change and development of educational practices, particularly in the classroom, for the most part have failed.</td>
<td>Despite committing large amounts for educational reforms many new programs failed to attain the goals. Initiatives for implementation will need to be prioritized and given full support for success.</td>
</tr>
<tr>
<td>Cheng (2009)</td>
<td>To explore</td>
<td>Conceptual</td>
<td>Economic</td>
<td>There are significant</td>
</tr>
<tr>
<td>Source</td>
<td>Title</td>
<td>Methodology</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Cong (2008)</td>
<td>Why people choose to be superintendents and what problems do they face.</td>
<td>Questionnaire</td>
<td>Superintendents thought that the most important role was to be an administrator.</td>
<td></td>
</tr>
<tr>
<td>Cong (2012)</td>
<td>To analyze the roles of education bureau directors and provide strategies to improve leadership.</td>
<td>Conceptual</td>
<td>The leadership structure of education bureau directors consists of three leadership dimensions: managerial, political, and educational.</td>
<td></td>
</tr>
<tr>
<td>Cravens (2014)</td>
<td>Design a theoretical framework for effective school leadership and to test its validity and generalizability cross-culturally.</td>
<td>Expert panel evaluation, interviews, and field testing.</td>
<td>The role of educational leadership, in China, is receiving noteworthy attention from policy makers and educational researchers.</td>
<td></td>
</tr>
<tr>
<td>Cravens, Liu, &amp; Grogan</td>
<td>Investigate the work-related Surveys – multiple choice for the 1st</td>
<td>Surveys – multiple choice for the 1st</td>
<td>With new national educational</td>
<td>Superintendents’ influence is limited</td>
</tr>
<tr>
<td>(2012)</td>
<td>agenda of the Chinese superintendent.</td>
<td>training session; Likert for the 2nd training session. Group discussion/focus group. Descriptive and correlations.</td>
<td>reforms, a reworked school administration is required.</td>
<td>due to the educational system’s narrow test-oriented directives. National examinations, curriculum materials and instructional practices are primarily focused on the tests.</td>
</tr>
<tr>
<td>--</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Feng (2006)</td>
<td>To examine the cultural dilemmas for school leadership resulting from differences between Western and Chinese values and practices.</td>
<td>Conceptual</td>
<td>The decision of the central government to shift China’s economic system from a planned to a market economy.</td>
<td>In pilot districts, there is evidence of curriculum reform and a move from centralized governance.</td>
</tr>
<tr>
<td>Huang (2006)</td>
<td>Probe for a reasonable assessment method for directors of education bureaus in metropolitan areas.</td>
<td>Case study</td>
<td>Assessment is important to improving the effectiveness of the director of education bureau.</td>
<td>The three main methods to assessing civil officials: democratic review, individual interviews and synthetic assessments.</td>
</tr>
<tr>
<td>Jiang (2004)</td>
<td>To provide superintendents real life working domains in leadership efficiency.</td>
<td>Case study</td>
<td>Reforms to basic education in recent years have made the role of superintendent more important.</td>
<td>The effective superintendent must understand the issues. As an educational leader, the superintendent must be able to recognize leadership characters. Leadership in ecospecies, focused on individual development and achievement.</td>
</tr>
<tr>
<td>Mok &amp; Ngok (2008)</td>
<td>Investigate the strains between the central education ministry, conventional minban higher education institutions and state-endorsed independent</td>
<td>Conceptual</td>
<td>In response to globalization, China’s central government opened up to private (minban) education institutions.</td>
<td>Globalization is diminishing the state's role in higher education; therefore, the Chinese government needs to construct new regulatory frameworks to govern the more</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Study Description</td>
<td>Study Type</td>
<td>Findings/Key Points</td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Tian &amp; Liu (2006)</td>
<td>To analyze directors, in terms of selection, appointment, qualifications, background, salary, and experience.</td>
<td>Conceptual</td>
<td>Directors carried a heavy responsibility to promote reform. Most directors were from the same region. They were closely tied to the communities, which, in turn, blocked new ideas.</td>
<td></td>
</tr>
<tr>
<td>Tsang (2000)</td>
<td>To identify emerging changes in basic education related to increased school choice in China.</td>
<td>Conceptual</td>
<td>Chinese society, as a whole, is becoming more open and government education policymakers have responded by allowing to some degree school choice. School choice and the expansion of non-government schools have proceeded at varying timelines across China due to disparities in local education policies and socio-economic conditions. State policies will have to be accommodating to regional variations.</td>
<td></td>
</tr>
<tr>
<td>Wang (2007)</td>
<td>Examine Chinese educational leaders’ conceptions on leadership and learning. Also, to investigate the</td>
<td>Case study</td>
<td>Globalization has drawn developing nations, such as China, to look to educational providers and research from The delivery of Western educational programs and thinking to developing nations in the East is not a straightforward</td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Research Question</td>
<td>Research Design</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------------------</td>
<td>----------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Wilson, Wenjun, Liya, &amp; Hua (2016)</td>
<td>To explore the changes in priorities and practices of Chinese principals in response to national curriculum reform.</td>
<td>Case study</td>
<td>Over a span of 20 years, curriculum reform in China is changing approaches to teaching and student learning. Principals and teachers were confronted with new challenges after the reforms, resulting in modifications to areas such as: networking, teaching quality, curriculum, and pedagogy.</td>
<td></td>
</tr>
<tr>
<td>Wu (2008)</td>
<td>To reveal the importance of government strategies for reform.</td>
<td>Questionnaire-Organizational Politics Scale and Organizational Commitment; Questionnaire-Leadership Behavior Description.</td>
<td>Government theories and practices give prominence to communal and profitability of public education. This decentralization of government has increased cooperation and partnerships among all stakeholders. Most superintendents prefer equity, efficacy, and micro intervention over macro management and regulation.</td>
<td></td>
</tr>
<tr>
<td>Yan and Wu (2013)</td>
<td>To sort through the unique practices of education directors during education reform.</td>
<td>Conceptual</td>
<td>The education director is not only the executor for the will of the government but also is the lead organizer or advocator for local education reform. The duties of the education director on many logistical issues.</td>
<td></td>
</tr>
<tr>
<td>Zhao (2008)</td>
<td>To explore superintendent professionalization.</td>
<td>Conceptual</td>
<td>Non-experts are directing experts in many counties’ education bureau. The professionalization of superintendents requires two aspects of expertise: educational and administrative.</td>
<td></td>
</tr>
</tbody>
</table>
Leadership Challenges and Roles of School Superintendents

Przybylski, Chen, Hu  7

2003-2007 Action Plan for Invigorating Education that was prepared by the Ministry of Education -- China.

Action Plan was part of the strategic process in Rejuvenating China Through Science and Education and Reinvigorating China Through Human Resource Development.

to further educational system reform in the context of developing a socialistic market economy.

Table 2: Summary of articles on United States superintendents’ leadership roles/tasks.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Main Research Focus</th>
<th>Methods &amp; Measures</th>
<th>Sample</th>
<th>Leadership Roles/Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augustine-Shaw &amp; Funk (2013)</td>
<td>Explored the Kansas Educational Leadership Institute, a five-year plan that set up collaborative environments for new superintendents to be mentored by experienced or retired superintendents.</td>
<td>Questionnaire -- open-ended questions.</td>
<td>1st year: 28S &amp; 7RS. 2nd year: 22S &amp; 7RS.</td>
<td>Mentees and mentors perceptions were positive regarding the programs: safe and trusting environment; face-to-face communications; reflections; networking; and leadership growth capacity.</td>
</tr>
<tr>
<td>Bird &amp; Chuang (2011)</td>
<td>Measured the connections between superintendent leadership authenticity with transparency, information processing, and staffing dynamics when developing the building budget.</td>
<td>On-line survey. Multivariate analysis of variance (MANOVA).</td>
<td>224S</td>
<td>Leadership authenticity had a positive and significant correlation with budget-building transparency and information management.</td>
</tr>
<tr>
<td>Bredeson (1995)</td>
<td>Examined the relationships between</td>
<td>Questionnaire. Frequency data, rank-order data,</td>
<td>326S</td>
<td>Superintendents partook in the following</td>
</tr>
<tr>
<td>Study</td>
<td>Summary</td>
<td>Methods</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>---------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Bredeson &amp; Kose (2007)</td>
<td>How reform initiatives, particularly accountability, have affected the work of superintendents.</td>
<td>Questionnaires (collected in 1994 and 2003) and interviews (2003). Numeric data were used for descriptive statistics, correlations, and to test for mean differences. Open-ended answers were analyzed with electronic qualitative software program QSR NVivo 2.2.</td>
<td>Superintendents responded to new initiatives by way of various curriculum and instruction priorities, budget increases to support these priorities, increased attention to data analysis, and hiring additional assistants to complete these tasks.</td>
<td></td>
</tr>
<tr>
<td>Bredeson, Klar, &amp; Johansson (2011)</td>
<td>How contextual factors influenced superintendent leadership.</td>
<td>Interviews. Searched for initial codes and categories, and used the constant comparative method to analyze and identify common themes.</td>
<td>District size, organizational culture, community characteristics, and geographic location significantly influenced superintendents’ leadership practices.</td>
<td></td>
</tr>
<tr>
<td>Canales, Tejeda-Delgado, &amp; Slate (2008)</td>
<td>Identified effective leadership behaviors displayed by superintendents/principals as observed by superintendents/principals, teachers, and school board presidents.</td>
<td>Questionnaires -- Leadership Behavior Description Questionnaire Form XII &amp; Leadership Behavior Description Questionnaire Form XII Self.</td>
<td>Top three leadership behaviors: Representation – ability to speak and act; Tolerance of Freedom – allowing followers scope for initiative, decision, and action; and Consideration.</td>
<td></td>
</tr>
<tr>
<td>Devono &amp;</td>
<td>Explored the</td>
<td>Questionnaire --</td>
<td>There was no</td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Research Methodology</td>
<td>Instruments</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>----------------------</td>
<td>-------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Fenn &amp; Mixon (2011)</td>
<td>Examined if relationships existed between superintendents' transformational leadership style, years of educational experience, and district size.</td>
<td>Questionnaire -- Multifactor Leadership Questionnaire.</td>
<td>No significant correlations between superintendent self-perceived transformational leadership style with district size, teaching years, principal years, and superintendent years.</td>
<td></td>
</tr>
<tr>
<td>Forner, Bierlein-Palmer, &amp; Reeves (2012)</td>
<td>Examined the leadership practices of rural superintendents.</td>
<td>Case Studies.</td>
<td>Seven core leadership practices: building support through personal conversations; using constructive confrontations to assist students and teachers; removing low performing teachers and principals; constructing firm working relations with principals; assertive in contract negotiations; revised monetary funding to match priorities; and set district goals.</td>
<td></td>
</tr>
<tr>
<td>Ireh &amp; Bailey (1999)</td>
<td>Investigated the relationships between Ohio school superintendents' leadership effectiveness and adaptability description readiness scale.</td>
<td>Leadership Effectiveness Adaptability Description &amp; Readiness Scale:</td>
<td>Superintendents demonstrated two predominant leadership styles: Selling -- high task</td>
<td></td>
</tr>
<tr>
<td>Authors</td>
<td>Study Title</td>
<td>Methodology</td>
<td>Sample Size</td>
<td>Findings</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td>Kowalski, Young, &amp; Petersen (2013)</td>
<td>Examined the extent to which age, gender, education level, and district type accounted for variability in superintendent community involvement.</td>
<td>Survey. Analysis of covariance (ANCOVA).</td>
<td>1867S</td>
<td>Age, gender, education level, and district type had a medium significant effect on superintendent community involvement.</td>
</tr>
<tr>
<td>Leon (2008)</td>
<td>How do high performing districts lead and foster improvement?</td>
<td>Conceptual study. Used four comprehensive studies.</td>
<td>NA.</td>
<td>Six major trends were found across the reports: (1) the importance of leadership; (2) the importance of systems alignment and coherence; (3) the need to focus on key priorities and initiatives; (4) the importance of collaboration; (5) teaching and learning as the core; and (6) balance between district and school autonomy.</td>
</tr>
<tr>
<td>Lewis, Rice, &amp; Rice (2011)</td>
<td>Determine which standards were most important to improving student achievement, identify barriers to implementing instructional leadership standards, explore how superintendents allocate time</td>
<td>Online survey. Kruskal-Wallis analysis of variance and Mann-Whitney nonparametric tests.</td>
<td>39S</td>
<td>(1) No significant difference in time allocation in relation to district enrollment. (2) Larger districts spent more time on human resources. (3) Socioeconomic status had no significant impact on superintendents’ allocation of time.</td>
</tr>
<tr>
<td>Study</td>
<td>Methodology</td>
<td>Sample Size</td>
<td>Key Findings</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Melton &amp; Cox (2010)</td>
<td>Examined the change-style preferences of superintendents by comparing preferences of other leaders’ to identify any potential connections to student achievement.</td>
<td>Survey. Change Style Indicator (CSI). 44S Superintendents were conservative compared to leaders from business and individual schools.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murphy (1994)</td>
<td>Investigated the effects of school and district restructuring on the roles of superintendents.</td>
<td>Survey -- open-ended questions. Comparative Method of Analysis. 74S The three main roles of the superintendent are: (1) developing community; (2) coaching; and (3) attempting to meet state standards.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noppe, Yager, Webb, &amp; Sheng (2013)</td>
<td>To identify the decision-making and problem-solving approaches most frequently used by superintendents.</td>
<td>Survey – responses to questions were provided on 10-point Likert-type scale. Analysis of Variance (ANOVA). 281S Superintendents, as a whole, differ in their approaches to decision-making and problem-solving.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stewart, Raskin, &amp; Zielaski (2012)</td>
<td>Identified the barriers and challenges that superintendents encountered when performing efforts to enact reforms to improve student</td>
<td>Survey – Likert scaled and open-ended questions. Descriptive statistics were calculated and comparative analysis was performed using Spearman Rho 212S Mandates, federal requirements, lack of funding, and tenure were identified by superintendents as the greatest barriers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Methodology</td>
<td>Key Findings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4,434SR 3.4 million SAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) District leadership is important; (2) Effective superintendents set up goal-oriented districts; (3) There is a correlation between superintendent tenure and student achievement; and (4) Effective superintendents set clear, non-negotiable goals for learning and instruction, yet, as well, pass on responsibility and authority to meet those goals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>176P</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) Principals wanted superintendents to engage in activities to support teacher leadership programs; and (2) Principals preferred superintendents that took on active roles to creating systems that supported teacher leadership.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Williams &amp; Hatch (2012)</td>
<td>Explored superintendents’ servant leadership behaviors as perceived by principals and school board members.</td>
<td>- Survey and Interviews. Spearman’s Rho -- Non-parametric inferential statistical technique.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>85SBM &amp; 178P</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) Trust and a shared vision are needed for team building; and (2) As tenure increased, goal setting decreased.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Sample Abbreviations:** NA = Not available; P = Principals; RS = Retired Superintendents; S = Superintendents; SAS = Student achievement scores; SBM = School Board Members; SBP = School Board Presidents; SR = Superintendent Ratings; STU = Students; T = Teachers

**China: Educational Contexts**

Up until the mid-1980s, China had a centralized political system, planned economy and a conviction to be isolated from the rest of the world (Feng, 2006). All educational institutions were state-run exemplified by the direct leadership of the government concerning instructional plans and textbooks throughout the country. This educational governance gave the central and provincial governments’ stringent control over financing, provision and management of education (Tsang, 2000). Since then, China has joined the World Trade Organization, promoted policies for economic creativity, innovation, and a workforce encouraged to participate in entrepreneurship ventures. In this new modified market economy, the government began to engage in macro management of education through legislation, allocation of funding, planning, and policy (Mok & Ngok, 2008).

In the decades that followed, many new policies and initiatives were introduced, such as the 2003-2007 Action Plan for Invigorating Education. The Ministry of Education attempted to improve the areas of moral education, basic education (Chinese language and math), curriculum, student evaluation, and special education. The reforms and innovations were carried out under the Project for Quality-oriented Education in the New Century which included training modes for teachers, management systems, curriculums, and teaching methodologies (Zhou, 2004). Meanwhile, government spending on education remained steadfastly low resulting in economic reform policies contributing to substantial economic disparities across the vast regions of China (Tsang, 2000). The educational inequality between urban and rural areas and between men and woman continued and to this day shows no signs of reversing any time soon. This inequality is reflected in the large gaps concerning basic literacy (Cheng, 2009). The 2005 China Human Development Report revealed that the proportion of urban lower secondary students entering upper secondary schools continues to significantly outpace the increases in rural areas between 1999 to 2003 (Cheng, 2009; UNDP, 2005).

Most Chinese still believe that academic success is the only means to improving their economic well-being and to move up socially (Chen, 2014). This idea, for the most part, stems from the teachings of Confucianism. In imperial China, individuals spent years studying for the government’s civil examination so as to become government officials which carried a high level of social status (Tsang, 2000). Hence, despite spending 8 to 10 hours per day at school and doing anywhere from 2 to 5 hours of homework per night on the weekdays, parents will have their children spend most of the weekend attending private training centers/visiting tutors to receive additional instruction primarily for Chinese language studies, English, and Math. These weekend classes are financially expensive causing parents and, grandparents in certain circumstances, to pay a noticeable percentage of their income or to go as far as getting bank loans to cover costs. The hope is that their children can score high in college entrance examinations and attend a highly-recognized university in China or go overseas to a revered institution. After graduation it is assumed that they will find or be offered a high paying job.
Parents often associate school quality with educational input, process, and output. More specifically, quality of teaching and school facilities is input, process has to do with principal leadership and school management, and test scores is linked to output (Tsang, 2000). This explains why students are encouraged to compete against each other for top academic grades and teachers are evaluated by principals according to what their students score on summative tests (Chen, 2014). Ultimately, the highest achieving students move on to higher rated schools and the supposedly better teachers follow suit (Chu, 2008).

Allowing students to enroll in “minban” schools has begun to take hold in many urban centers across the country (Tsang, 2000). They are neither government nor private schools, somewhat similar to some charter schools in North America. There are also many different types of boarding and private schools that are operated by the government or a public school acting as an overseer. Some of these schools are affiliated in foreign partnerships, such as the British Columbia Certified Offshore Schools which are inspected and certified by the British Columbia Ministry of Education. Students attending the program receive instruction in English from British Columbian certified teachers and receive a British Columbia Certificate of Graduation upon completion (British Columbia, 2017). Parents choose to pay the much higher fees and other additional costs believing that their children are attending higher-quality schools and thus will have a better chance of being accepted at a highly rated university or have opportunities to go abroad for college.

China: Superintendents Leadership Challenges

The current design of the superintendent position in China imposes a number of problems. First, there is the tendency to treat schools in the district as extensions of the municipal government and manage them with a top-down approach (Cheng, 2002). Secondly, the autocratic style of the position generates an atmosphere that gives limited consideration to principals, teachers, staff, parents, and students (Cheng, 2009; Chu, 2007; Li, 2007; Walker, Rongkun, & Haiyan, 2012). Thirdly, superintendents are chosen on seniority or for local political motives (Cheng, 2002). Lastly, it is common for superintendents to have no educational experience whatsoever (Tsang, 2000). As a result, superintendents tend to manage in a manner that supports the status quo.

For those superintendents that are inspired to make changes, they simply lack the skills to do so. Furthermore, they are up against traditions that have been deeply held and practiced (Wang, 2007). In most circumstances, changes will seem dramatic as if to remake the very core of Chinese education.

The Leadership Roles of Superintendents in China

There has been three decades of national curriculum reform requiring fundamental shifts in approaches to teaching and student learning in China. Chinese school principals/headmasters and teachers to a certain degree have responded to the new challenges by adjusting priorities, leadership styles, behaviors and work patterns; on the other hand, the superintendents’ role has remained relatively unchanged. The structure of a typical school district remains highly centralized causing inequalities in municipal leadership and governance, school administration leadership, school infrastructure, and teacher quality (Cheng, 2009; Chu, 2007; Li, 2007;
Appointed superintendents have had the tendency to deal with schools as an extension of government and manage them with top-down approaches (Cheng, 2002). The authoritarian style of management that is carried forth severely restricts the prospects for change and amendments to the overall structure, human capacity, and objectives of the school district. More importantly, little consideration is given in how to enhance principals and teachers performance for the purpose of improving student achievement. Seniority matters most when it comes to the superintendent and municipal management positions, prior experiences with school leadership and management are not necessary and there is little incentive to gain additional training to develop the knowledge and skills in becoming effective leaders (Cravens, Liu, & Grogan, 2012; Huang, 2004). This logic has lead principals and teachers, on the whole, feeling incapable to cope with the curricular reforms, pressures for student improvement by means of test scores, and parental expectations (Wilson & Xie, 2013; Wilson et al., 2016). This is not to say all Chinese superintendents share the same management style; in a study conducted by Cravens, Liu, & Grogan (2012) reported that more than 30 percent of superintendents shared a vision of managing their districts “bottom-up”. These same superintendents though expressed the improbability of enacting on their desired approach.

So, what will become of the educational system and the role of the superintendent in a country that shows no sign of slowing down its economic transformation? For most Chinese, especially those living in urban settings, are reminded daily of the rapid change that is now taking hold. This will undoubtedly put immense pressure on the current construct of its school system. There are those, such as economists, urban planners, and municipal/provincial leaders and planners, hold the view that for economic growth to continue it will require a competent educational system. The new modern school system will need to be responsive to the ever-changing global market, government institutional modification, and privatization – as per government policies and regulations (Chu, 2007).

As already mentioned, the current workings of educational administration exist within the confines of centralized government structures. Decision making follows the bureaucratic format of passing along directives from higher echelons of authority to those that will ensure the policies will be carried out as mandated. This is primarily done at the local school systems levels that are managed by municipal governments. Unlike in the U.S., there are no school boards with elected trustees from the community or district. Administrators -- superintendents and principals -- are typically, civil service officials with little or no K-12 experience. There are those that have no direct training or even aspire to be involved in education; but use the posting as a stepping point to more lucrative ranks in government (Cheng, 2002).

To initiate change, it will most likely have to start with the downsizing of provincial central education departments. Superintendents are inundated with policies from Beijing and/or provincial departments with the expectation of strict adherence. If there is the slightest opportunity for modification he/she is faced with the enormous challenge of laboring through the many facets of government. To lessen gridlock and to allow superintendents operate in an environment more open to new ideas goes against the interests of the existing bureaucracy (Cheng, 2002). Additionally, the strong bond between
government policies and the mindset of the “common good” is deeply-seated in present day Chinese society, thus creating a sense of anxiety whenever change is encountered. The latter is speaking in general terms; nevertheless, superintendents are restricted in the current framework and for the most part are ill prepared to take on the responsibilities of change if opportunities were to come forth. When given the opportunity, local educational systems struggle to balance reform mandates because of pressures stemming from the highly competitive examination system that remains essentially unchanged (Cravens, Liu, & Grogan, 2012). It is standard practice to have students ranked by grade, for instance, 1st to 150th, based on academic achievement. Tests play the largest role in determining these rankings. These tests not only present a great deal of stress for students and parents, but as well for teachers, principals, and superintendents. The demanding atmosphere filters throughout the system and acts as barrier against change. Therefore, in the end, superintendents content with the status quo can easily disappear within the confines of the bureaucratic system; however, for those superintendents attempting to self-initiate changes or implement directives from higher authorities are left with the chore of battling against the deep-rooted culture on education that goes back to 1949 and even further to the teachings of Confucius and the many philosophers that followed in the past few thousand years. Similar to U.S. rural superintendents, Chinese superintendents, particularly in the western portion of the country, deal with divergent community beliefs and values. Also, they are faced with extreme scarcity of resources. The economic growth that has brought forth a high degree of transformation for much of China, in large part, has evaded the western portion of the country. Social issues that are prevalent in the sphere of poverty are prevalent. Schools are not immune to this existence with some villages not having a formal school and many towns and villages consisting of rundown, ill equipped and understaffed schools (UNDP, 2005). It is also common in these regions to have schools with untrained or partially trained teachers (Cheng, 2009; UNDP, 2005). As a result, the job at hand for superintendents is trying to say the least. Coupled with fact that many of these superintendents have no formal training in educational matters and have never set foot in a school as a teacher or principal only adds to the despairing situation. In all, the position of superintendent stresses authority in the hierarchical structure of China’s educational system. The superintendent is more of an operational implementer; rather than a visionary planning strategically (Wang, 2007). The leadership approach is commanding using policy directives as a means to ensure the local government goals for its schools are carried out accordingly (Cheng, 2002). This process is strictly task oriented and success is measured by scores attained by student on standardized tests (Cravens, Liu, & Grogan, 2012). There is barely room for the superintendent to seek changes as a response to specific district concerns or interests. Simply put, the current system quashes such thinking.

United States: Educational Contexts

The report A Nation at Risk, in 1983, swayed educational policymakers to conclude that public education was in a state of calamity and in need of an overhaul. This was followed by comments from, then, Education Secretary William J. Bennett (1985-1988) characterizing superintendents, district office staff and schools board members as part of the education “blob”
soaking up resources and resisting reform without contributing to student achievement (Education Week, 1987). A national call for educational accountability through high stakes testing took hold. This call was answered with the passing of the No Child Left Behind Act of 2001 (NCLB), education improvement was to become a local, state and national focus (Kowalski, 2006).

While the goal of accountability was intended to improve equity and student learning, the outcome of a complex system of assessments have yet, for the most part, have failed to reverse student drop-out and graduation rates, close achievement gaps between student subgroups, and the disparity between high achieving schools and low performing schools still persists (Louis & Robinson, 2012). Likewise, initiatives that were intended to provide guidance and support showed school district leadership playing a limited role to applying state policies.

The method of collaborative leadership was undertaken by many superintendents and principals in the hopes of enticing teachers to buy-in through ownership. While faculty collaboration achieved success in some schools; in others, especially those that were struggling tended to fall short of the goals set by the district/state. In the end, the pressures of accountability continued to be the driving force when it came to establishing leadership within schools and districts leaving many superintendents and principals to pull back to previous methods. The reasons were mainly attributed to the realization that they alone would be held fully responsible when it came to student achievement (Monpas-Huber, 2010).

NCLB specified systems of benchmarks with definitive timelines. Many states responded with policies outlining learning outcomes and by conjoining students’ test scores to rewards and sanctions for school districts, schools, and students. Furthermore, many states enacted policies requiring students to pass a type of graduation exam to graduate from high school.

It was believed that teachers would be self-motivated to perform at a high level by way of a sense of responsibility and the realization of internal consequences for not meeting expectations. Likewise, district leadership and principals were ultimately held responsible for ensuring that benchmarks were met at their respective schools/districts.

United States: Superintendents Leadership Challenges

The superintendent position in the U.S. has increasingly become defined by its complexities and challenges stemming from political pressures and conflicting interests, volatile school finances, standards-based reform, and greater demands for accountability to increase student performance through state and federal initiatives. More specifically, superintendents have been expected to establish the district and school conditions to improve curricular, instructional, and assessment practices toward improved student achievement (Bredeson & Kose, 2007; Rallis, Tedder, Lachman, & Elmore, 2006). Superintendents are expected to cover a broad range of responsibilities, typically as either management-related or leadership-related. Management-related decisions regarding how to do things commonly encompass actions such as controlling resources, supervising personnel, and organizing operations (Hanson, 2003; Kowalski, Young, & Peterson, 2013).
Leadership-related decisions involve what needs to be done to improve a district and its schools, such as inspiring people, fostering coalitions, and facilitating collaborative reform efforts (Yukl, 2005; Kowalski, Young, & Peterson, 2013).

Now, the Every Student Succeeds Act (ESSA) commands as the driving force of the superintendents’ leadership agenda. Beginning in the 2017-18 school year, the superintendents and district staffs are expected to work with teachers and principals to develop evidenced-based plans. Some of these areas may include student engagement, teacher efficacy, and college and career-readiness. Additionally, in some states, superintendents will be expected to take on the lead role of turning around designated failing schools in their respective districts.

The Leadership Roles of Superintendents in the United States

Superintendents in the U.S. assume major leadership and management roles in planning and the implementing of programs under the direction and watchful eyes of federal and state education departments, local trustee boards, communities that they serve, parents, and students. To be successful, superintendents are expected to be creative, implementers, facilitators, and motivators for change all in the hopes of achieving the primary goal of increasing student learning.

Waters & Marzano’s (2006) meta-analysis of 27 quantitative studies from 1970 to 2005, examined 4,434 superintendent ratings and is considered by many educational researchers as a pinnacle study on the roles that U.S. superintendents are expected to perform. The authors noted that district-level leadership mattered when it came to student achievement on the basis of a result showing a statistically significant relationship (a positive correlation of .24).

An Alabama study of superintendents ranked teaching and learning as the most important standard for improving student achievement (Lewis, Rice, & Rice Jr., 2011). The irony is federal requirements that were introduced to bring about reform are being viewed by superintendents as barriers to change needed for improving student achievement (Stewart, Raskin, & Zeilaski, 2012).

NCLB generated overt expectations for schools to organize data by student subgroups and for educators to reduce the achievement gap (Monpas-Huber, 2010). All schools had to show AYP of both the student body in its entirety and for specific student subgroups on achievement tests (Sanzo, Sherman, & Clayton, 2010). To help with this, NCLB specified systems of benchmarks with definitive timelines (Crum, Sherman, & Myran, 2009). Many states responded with policies designed in the hopes of raising students’ learning outcomes and reducing race and class achievement gaps by conjoining students’ test scores to rewards and sanctions for school districts, schools, and students (Diamond & Cooper, 2007). Furthermore, many states enacted policies requiring students to pass state assessments to graduate from high school. Such policies expected teachers to not only use data in ways that aligned instructional practices with state standards but also encouraged them to provide additional support to students at risk of not meeting standards. Teachers would comply in doing the aforementioned since a strong accountability culture would exert a strong influence on teachers to have a sense of responsibility and the feeling of internal consequences for not meeting expectations (Monpas-Huber, 2010).

Superintendents likewise had a role to play in the new era of accountability. In many instances, they were ultimately held
Leadership Challenges and Roles of School Superintendents

Przybylski, Chen, Hu  19

responsible for ensuring that benchmarks were met at their respective school districts. Therefore, at failing districts, superintendents often implemented changes in hopes of reversing the districts’ fortunes. In many instances where initiatives failed to produce positive results, the superintendent often took the brunt of the districts’ shortcomings, which typically led to dismissal.

Superintendents responded to political influences by working closely with school board members, forming leadership teams, communicating frequently and directly to various stakeholders, and developing relationships with key community members (Bredeson, Klar, & Johansson, 2011). However, recent research has consistently shown that superintendents do not involve themselves in community activities as in the past and the reasons for this remain largely unknown (Kowalski, Young, & Peterson, 2013).

Effective superintendents focus efforts on creating goal-oriented districts by focusing on the following: data analysis, providing supports, communicating student learning outcomes, setting expectations, professional development (Bredeson & Kose, 2007), annually evaluating principals, reporting student achievement to the board, observing classrooms during school visits, and gathering resources for instruction (Waters & Marzano, 2006). Also of note, successful implementation of these objectives are heightened and increased student achievement are realized when the tenure of superintendents’ is prolonged over several years -- Waters & Marzano (2006) found two studies in their meta-analysis that indicated a statistically significant correlation of .19 between superintendent tenure and student achievement.

Superintendents of so-called “high-performing” districts ensure that time, money, personnel, and materials, are allocated to accomplish district goals (Waters & Marzano, 2006). Curriculum and instructional leadership are generally viewed as important, they take it upon themselves to develop communities and instructional coaches (Forner, Bierlein-Palmer, & Reeves, 2012; Murphy, 1994); but other responsibilities such as legal and political issues take a great deal of time and carry away focus from areas like instructional leadership (Bredeson & Kose, 2007). Principals expect superintendents to articulate district missions and one of the means to do so is through instructional collaboration. This ensures that curricula initiatives are fully supported and the implementation of new ideas will be seen to completion. The superintendents’ and principals’ perceptions of effectiveness are closely aligned. When superintendents allocate responsibilities to principals this presents educational opportunities for teachers to foster creative learning environments team building is likely to be achieved (Devono & Price, 2012). Thus, superintendents view their role as system administrators who make it possible for teachers, principals, and instruction coaches to carry out the responsibilities of instructional leadership (Wells, Maxfield, Klocko, & Feun, 2010).

Many U.S. superintendents value practicality, processes and policies, and approach problems systematically (Melton & Cox, 2010). Others, practice transformational leadership realizing acceptable and exemplary levels of student achievement regardless of district size or years of experience (Fenn & Mixon, 2011). There are also those that perform authentic, distributed, servant, and shared leadership styles in order to make deeper, cultural changes in the school district, in effort to break away from traditions that have hampered student learning (Bird & Wang, 2011; Wells, Rongkun, & Haiyan, 2010;
Williams & Hatch, 2012). Yet, there are too many that are still ingrained with patterns of behavior resistant to school reform (Stewart, Raskin, & Zeilaski, 2012). This is in large part due to revenue and expenditure limitations (Noppe, Yager, Webb, & Sheng, 2013). Superintendents frequently mention that the one area that is most challenging and demands a vast amount of time and effort is budgeting and financial planning (Bredeson, 1995; Conference Board, 2008; Lewis, Rice, & Rice Jr., 2011). The lack of time to fully devote attention to this area also adds to the predicament (Lewis, Rice, & Rice Jr., 2011). In all, such problems have resulted in many district goals to never reach maturity (Conference Board, 2008).

So, despite attempts to develop an effective learning environment based on central principles and consensus building; U.S. superintendents still have a long road ahead to actually meeting the many goals established by federal and state governments and local school boards along with the needs of principals, teachers, students, parents, and school communities (Devono & Price, 2012; Forner, Bierlein-Palmer, & Reeves, 2012; Leon, 2008). This may explain why roughly half of all superintendents are removed, resign, or take another position within three years of starting their positions (Grissom & Anderson, 2012).

**Discussion and Recommendations**

China went about its own direction since the mid-1980s in its efforts to reform economically, socially, and politically. The transformation has been astounding in terms of how quickly and the vast accumulation of change that has been achieved. At the same time, the country has cautiously opened itself to the rest of the world, for instance, allowing foreign experts to enter and work in hopes that they will pass along additional know-how. This new tightly controlled openness has also led to observations, research, and evaluations uttering criticisms. The highly centralized educational system being one area singled out as needing much further examination. What has happened is the adoption of a number of western ideas and the development of systems reflecting Western culture (Liu et al., 2007).

Up to this point in time, Chinese educational leaders and policymakers have been open to many Western theories on education and leadership; however, the present situation implores the question of how far China should go to using Western ideas to building new organizations within its educational system. The country consists of a rich culture with traditions that are not only older but considerably more engrained into the make-up of its conscience. For centuries and several dynasties young Chinese scholars strived to pass government exams immersed in the teachings of its renowned philosophers and in turn applying the values to the undertakings of the country. Such historically traditions are venerated; thus, change to existing systems in China requires respect. To go about change by merely applying Western ideals is not only insensitive to the cultural and traditional composition of the country but overly simplistic.

Wang’s (2007) study attests to this by indicating five prominent findings, current Western educational leadership ideas promoting strategic planning, participation, collaboration, shared vision, and motivation; whereas, the Chinese perspective invokes implementation, directives, coercion, individual decrees and specific tasks. The Australian offshore leadership program conducted in China from 2002 to 2003 highlighted these differences prior to the course and at the end of 12 months Chinese educational leaders reported a willingness to try and to be more open to an expanded range of leadership strategies; but then
again, the motives were more of a general sense for change as compared to implementing specific strategies.

Garnering from the study results of Wang (2007) and from literature revealing the conservative nature, centralized ideology, and traditional values held by Chinese educational leaders (Walker et al., 2012), simply exposing them to Western leadership ideas does not translate to total acceptance. Though this may be the case, should China pursue the U.S. model of governing schools by means of superintendents? In the following paragraphs a closer look at the workings of the U.S. superintendent and the possible implications in China will be investigated with the intent of answering the aforementioned question.

To begin, the position of superintendent in the U.S. is political owing that he/she must answer to the school board which is elected by the citizens of the district. Whenever a position must answer to and is overseen by the public, politics cannot be avoided. The superintendent position is an open-system influenced not only by the board trustees but also by state politicians and department of education bureaucrats and by those the school board represents, parents, community members, and students. As can be seen, he/she must answer to a number of constituencies with each having specific interests which they deem as being most important. This leaves very little room for any gaffes in judgment. Missteps easily lead to conflicts and with the present governing framework, debate trumps compromise, leaving one side to be determined as the winner. For those on the losing side, there is a loss of confidence bestowed on them, for a superintendent this can be detrimental, such as being sacked of their position.

If educational change is to continue in China, it will require those in authority to make a number of decisive judgment calls. Should superintendents in China be held to similar scrutiny as to those in the U.S. the process would likely be marred in turmoil with high superintendent turnover, limited collaboration between stakeholders, and aspirations of power between parties of interest. China requires high levels of efficacy and trust for educational systemic changes to proceed; therefore, it can be assumed that the current U.S. system of K-12 school governance is not a good fit due to its political nature.

Political end results arising from the structural make up of U.S. local education governance tends to have superintendents being more responsive to those at the upper levels of the bureaucracy – school board trustees, state educational department personnel, and state politicians; rather than, to the lower levels comprised of principals, teachers, parents, community, and students. The superintendents must answer to the initiatives laid out by those at the upper levels for they are the authors of the policies, have hired them, and eventually evaluate their overall performance. They determine if superintendents are successful or repercussions are in order. The dire consequences of this, is that, the superintendents are to serve are mostly overlooked. Far too many times superintendents become involved as a last resort to a problem or situation that has become so large that the school concerned. Putting out fires; rather than establishing frameworks for success becomes the primary role of superintendents and this takes away valuable time from prerogatives such as school improvement and student learning.

Because of the bureaucratic make up of school districts, superintendents are far removed from the activities in classrooms. Classrooms are where teaching and learning takes place and is the heart and soul of the
school district. Existing school district policies have principals as the go between teachers and superintendents; however, research has shown that this construct is plagued with problems. For example, many teachers only see principals in their classrooms when evaluations are taking place and when it comes to superintendents most teachers have difficulties recalling ever meeting them (Author, 2017). Principals have also mentioned that opportunities to communicate with superintendents is a problem for many, formal district meetings typically are the only places for a chance to communicate one-to-one (Author, 2017). Lastly, communications between superintendents and parents, community members, and students are not much better. Superintendents spend a great deal of time with trustees, state education officials, and politicians the perceived power brokers and the end result of this practice is straining the relationship with those at the forefront of teaching and learning.

So, before China considers moving ahead with changes to its school district systems and with the roles that superintendents are to perform, just accepting the U.S. model as the new framework should be avoided. U.S. local school governance is unique among the national systems of education throughout the world; however, it is awash with problems. In search of its own vision and purpose initiatives such as No Child Left Behind, Common Core Standards, and Every Student Succeeds Act have failed to live up to expectations. This has led to an erosion of public confidence for a common agreement concerning public education.

Though it was mentioned in the previous paragraph that it would be wise not for China to blindly accept the U.S. style of local school governance for the reasons outlined and the struggles that are occurring in many school districts; there are districts that have students achieving when it comes to learning, successful schools, and central office personnel that are leading for success. Yes, there are elements of the U.S. system that are worthy of acquiring and implementing. Chinese educational leaders made up of researchers, government leaders, school administrators, teachers, businesses, communities, and students along with their families can play a vital part in devising new solutions that best fits the uniqueness of China.

One way is by focusing on policies and supports that will enhance each specific school district to achieve its own strategic vision and plan. Districts must have the freedom to develop collaborative structures for working with school principals and teachers to create school environments that improve student engagement and learning. This will require a shift in the role of superintendents and a corresponding shift on the role that provincial governments and Beijing are to perform. Supports must be in place for superintendents to assist in the enabling of focused missions and visions of key principles and practices to guide district improvement. In turn, superintendents must put in place supports for central office personnel to spend the majority of their time in schools, working with principals and teachers to create cultures of success uniquely suited to the students’ needs and the teaching staff strengths. Finally, superintendents need to be transparent with decision making especially about important district matters. Stakeholders appreciate understanding and the rationale behind important decisions. This is usually best done in small groups and face-to-face meetings and will take time but the pay-off is worth it.
Conclusion

The year of 1978 marked the beginning of the Thirty-Year Reform Period launching economic reform in China (Chu 2008; NCEDR 2007). Since then, the country has achieved tremendous economic success. Statistics from the World Bank reveal that in 2008, China surpassed Japan to become the second largest economy in the world (Cheng, 2009). Some economists are now predicting that there is the real possibility for China not only to catch up to the United States (U.S.) but to even surpass it as the world’s largest economy in about ten years (Nye, 2010). However, throughout this astonishing growth, distribution of economic, social, and educational opportunities across the nation have not been uniform (Cheng, 2009).

As China strives to shift from a developing nation to one that is developed, K-20 education will have to play an integral part in the process. Educational transformation has already begun, but the necessary means on how education can aid the nation’s ambitious goals is far from being realized. The process will continue to be complex teeming with numerous challenges. One of these areas are the roles that school district superintendents will have to perform for school and student improvement.

Research in this area is currently scarce. Existing studies and reviews primarily focus on introducing Western leadership theories and practices. They suggest China would be wise to examine the progression of the U.S. superintendent in order to learn how to best manage the new external mandates and complexities of the profession (Cong et al. 2007; Cravens, Liu, & Grogan, 2012; Liu et al., 2007). Historically, for instance, to develop its K-20 educational system, China borrowed greatly from the United Kingdom and the United States. So, can China learn from the West, once again?

This paper considers the transferring of a uniform educational policy/system as not applicable. Therefore, for China to just adopt the U.S. structure of district leadership and the roles of the superintendent will simply not work.

The philosophical disparity between the two countries is clearly evident concerning education. It would be unreasonable to simply suggest Chinese superintendents to shadow the actions of those of the United States. Rather, they must uniquely enact change in accordance to the contextual factors, such as: district size, community demographics, culture, history, geography, and local political realities (Bredeson, Klar, & Johansson, 2011).

This paper strives to continue the conversation. The rapid economic transformation from a third world to a developing nation has been unprecedented with societal changes virtually following stride in many regions, in particular, the cities. It is hard to imagine the educational system remaining stagnant for long; not changing would be going against the philosophy of the new China.

Author Biographies

ROBERT PRZYBYLSKI is an Assistant Professor and Foreign Expert at the Department of Educational Leadership and Management, College of Educational Science, Nanjing Normal University. Prior to obtaining his PhD from the University of Alabama, he was a teacher, assistant-principal, and principal in Alberta, Canada, over a span of 15 years. His current research focus is on understanding the significant features of schools as organizations and how these affect leadership, policy, instruction, and reform.

E-mail: rpcrimsonforever@gmail.com
Acknowledgement

This paper is the latest result from the national key project of the 13th Five-Year Plan of the National Educational Science Research Project on the Standardization Construction of Compulsory Education Schools (2016). Project approval number: AHA160006

References


