Volume 02 February, 2019 Number 01

Science Insights Education Frontiers

Published Bimonthly by
Insights Publisher

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Original Article

Parental Engagement Program Has Mixed Impacts in Early Education

By Lord, P., Styles, B., Morrison, J., White, R., Andrade, J., Bamford, S. & Smith, R

AN evaluation of the Education Endowment Foundation's trial of Families and Schools Together (FAST) in the UK, delivered by Save the Children, did not appear to make a difference in children's achievement, but was found to be an effective mechanism for engaging parents in their children's early education. FAST was also shown to have a positive impact on children's social and behavioral outcomes across the whole grade level and not just the children who participated in the program.

FAST is a parental engagement program that aims to support parenting and enhance links between families, schools, and the community. Parents and their children attend eight weekly two-and-a-half-hour group sessions delivered after school by accredited FAST trainers.

The school-level randomized trial measured the impact of FAST for the whole grade level on Key Stage 1 (a standardized assessment of achievement in the UK) reading and arithmetic achievement, and children's behavioral and prosocial outcomes (measured using the Strengths and Difficulties Questionnaire (SDQ)). One hundred and fifty eight schools took part in the trial, with a total of 7,027 students across the Year 1 cohort in these schools, and 632 students taking part in the eight-week program.

- The evaluation found no evidence that FAST had an effect on KS1 reading and arithmetic outcomes for the whole grade level (ES= +0.01).
- There was also no evidence that FAST had an impact on KS1 outcomes for the children whose families took part in the eight-week program.
- However, FAST showed some promise on non-academic outcomes, with positive outcomes for the whole year group. Immediately after the eight-week program, Year 1 students in the intervention schools had a higher average prosocial score and a lower average total difficulties score than students in comparison schools. However, these effects diminished by the end of Year 2.

Parents involving in the program perceived positive outcomes for them, such as enhanced approaches to parenting, new friendships among parents, and confidence to join further activities.

Source：Lord, P., Styles, B., Morrison, J., White, R., Andrade, J., Bamford, S. & Smith, R. (2018). Families and Schools Together (FAST): Evaluation report and executive summary. London: Education Endowment Foundation.

Effect of Preschool Home Visiting on School Readiness

By Bierman, K. L., Welsh, J., Heinrichs, B. S., & Nix, R. L.

A STUDY published in JAMA Pediatrics examines the sustained effects of a preschool home visiting program on child outcomes in third grade. Karen L. Bierman and colleagues conducted a randomized controlled trial of the Research-Based and Developmentally Informed Parent home visiting program (REDI-P) on 200 families with preschool children recruited from 24 Head Start centers in Pennsylvania.

Families were assigned to either receive the REDI-P intervention or be sent math learning games in the mail (control group). The intervention focused on improving academic performance and social-emotional adjustment, and reducing children's problems at home. Families received 10 visits from home visitors during preschool and six follow-up visits in kindergarten. Parents received coaching to enhance parent-child relationships and home learning materials to support children's development and school readiness.

Overall, REDI-P produced sustained benefits four years after the intervention, with children in the REDI-P intervention group needing and using fewer school services than children in the control group. Results showed:

1. There were improvements in academic performance in third grade, measured by direct assessments of child sight-word reading fluency (effect size = +0.28) and teacher-rated academic performance in third grade (effect size= +0.29).
2. The intervention also promoted sustained improvements in children's social-emotional adjustment, reflected in direct assessments of social understanding (effect size = +0.31).
3. REDI-P also produced reductions in the home problems that parents reported (effect size= −0.28).

The authors suggested that the sustained effects indicated that similar preschool home visiting program might leverage upward socioeconomic mobility and promote improved health and well-being in later years.

Source: Bierman, K. L., Welsh, J., Heinrichs, B. S., & Nix, R. L. (2018). Effect of preschool home visiting on school readiness and need for services in elementary school: A randomized clinical trial. JAMA Pediat, 172(8):e181029

Examining the Effects of Parental Involvement

By Boonk, L., Gijselaers, H. J. M., Ritzen, H.

A PAPER by Lisa Boonk and colleagues, published in *Educational Research Review*, reviews the research literature on the relationship between parental involvement and students' academic achievement.

To be eligible for the paper, studies had to (a) investigate parental involvement and its relation with academic achievement of learners aged 0 to 18; (b) provide clear descriptions of the parental involvement construct and measurements and type of academic outcome; and (c) be published in the period 2003 to 2017 in a peer reviewed journal. A total of 75 studies were included.

After reviewing the literature, the authors found that parental involvement variables that show promise according to their correlations with academic achievement are:

- Reading at home
- Parents that are holding high expectations/aspirations for their children's academic achievement and schooling
- Communication between parents and children regarding school
- Parental encouragement and support for learning

The authors concluded that parental involvement was related to children's academic achievement and its effect did not weaken as children grow, although it would change in nature.

Source: Boonk, L., Gijselaers, H. J. M., Ritzen, H., & Brand-Gruwel, S. (2018). A review of the relationship between parental involvement indicators and academic achievement. Edu Res Rev, 24:10-30.

Does Harsh Parenting Affect Chinese Students' Academic Achievement?

By Wang, M., Deng, X., & Du, X.

CHINESE parents were reported to exercise a higher level of parental control. To understand how this could affect students' achievement, an article published in the *Journal of School Psychology* examined the relationship between harsh parenting and adolescent academic achievement, as well as how effortful control and classroom engagement mediated the effects of harsh parenting. The research also investigated how boys and girls were differently affected.

Mingzhong Wang and colleagues surveyed 815 students in sixth through eighth grade from two public junior high schools located in rural areas of Eastern China, as well as their parents. Students' academic achievement was measured by a standardized score obtained from test scores in Chinese language, English language and Math combined with two teacher-rated items. Harsh parenting, effortful control and classroom engagement were measured by items used in prior research and were validated.

The findings showed that:

- Harsh parenting has negative direct effects on academic achievement for both boys and girls.
- Harsh parenting also has a detrimental effect on students' effortful control, making them less engaged in classroom activities and in turn leading to poorer academic achievement, regardless of gender.
- For boys, the negative indirect effect of harsh parenting on academic achievement was mainly through the adverse impacts of effortful control. For girls, it was mainly through classroom engagement.

The authors concluded that teachers should not only pay attention to proximal factors such as classroom management to improve students' academic achievement; instead, malleable distal factors such as harsh parenting are also important.

Source: Wang, M., Deng, X., & Du, X. (2018). Harsh parenting and academic achievement in Chinese adolescents: Potential mediating roles of effortful control and classroom engagement. J Sch Psychol, 67:16-30.

Self-explanation Is Often More Effective than Presenting Students with an Explanation

By Bisra, K., Liu, Q., Nesbit, J. C., Salimi, F., & Winne, P. H.

RESEARCHERS at Simon Fraser University in Canada conducted a meta-analysis on research that investigated learning outcomes for students who received self-explanation prompts while studying or solving problems. Self-explanation is a process by which students use prior knowledge to make inferences in order to fill in missing information or monitor understanding.

Their study, published in *Educational Psychological Review*, examined 69 independent effect sizes from 64 studies (5,917 participants). Studies had to include a treatment condition in which learners were directed or prompted to self-explain during a learning task, with a comparison treatment where learners were directed not to self-explain. The measure was a cognitive outcome such as problem solving or comprehension. Learning activities were mostly of short duration (less than an hour) and carried out with undergraduate students.

The analysis found that:

- There was a positive overall weighted mean effect size on learning outcomes for students who were prompted to self-explain compared to those who were not. (ES = +0.55)
- However, most of the studies were very brief and artificial, so the outcomes cannot be assumed to apply to actual classroom practice.
- Moderating variables were also examined in order to investigate how learning outcomes varied under a range of conditions, but were found to have no significant difference on effect sizes.

The study concludes that having students come up with an explanation themselves is often more effective than presenting them with an explanation.

Source: Bisra, K., Liu, Q., Nesbit, J. C., Salimi, F., & Winne, P. H. (2018). Inducing self-explanation: A Meta-Analysis. Edu Psych Rev, 30(3):703-725.

Do Students Benefit from Longer School Days?

By Figlio, D., Holden, K. L., & Ozek, U.

A STUDY published in *Economics of Education Review* looks at the evidence from the extended school day (ESD) program in Florida to determine whether students benefit from longer school days.

In 2012, Florida introduced the ESD program, increasing the length of the school day by an hour in the lowest-performing elementary schools in order to provide additional reading lessons. The lessons had to be based on research, adapted for student ability, and include phonemic awareness, phonics, fluency, vocabulary, and comprehension. Schools were selected using school-level reading accountability measures. For this study, David Figlio and colleagues looked at reading scores for all students in Florida between grades 3 and 10 using school administrative data from 2005–06 and 2012–13, and employed a regression discontinuity design to estimate the effect of lengthening the school day, looking at the different performance of schools either side of the cut-off point.

Results indicated that:

- The additional one hour of reading lessons had a positive effect on students' reading achievement. ESD schools showed an improvement on reading test scores in the first year (ES = +0.05).
- The annual cost of the ESD program was $300,000-$400,000 per school, or $800 per student.

In the conclusion, the authors suggested that the instructional benefit per dollar of additional reading time was in line with or superior to large-scale class size reduction.

Source: Figlio, D., Holden, K. L., & Ozek, U. (2018). Do students benefit from longer school days? Regression discontinuity evidence from Florida's additional hour of literacy instruction. Econom Edu Rev, 67:171-183.

The Effective of Cooperative Learning in Middle School on Reducing Bullying?

By Van Ryzin, M. J., & Roseth, C. J.

WHILE many studies show positive effects of cooperative learning on student achievement, a recent study examined the effects of cooperative learning on reducing bullying in middle school.

A total of 15 rural schools (n=1,460 seventh graders) in the Pacific Northwest were matched based on size and free-lunch percentage, and then seventh graders were randomly assigned to either receive a cooperative learning program (n=792) or to continue business as usual (n=668). The cooperative learning program used techniques by Johnson, Johnson & Holubec (2013), incorporating peer tutoring, collaborative reading, and methods where classmates rely on each other to learn new information while being held individually accountable for what they have learned. The theory behind this study was that in cooperative groups, bullies would not be reinforced by their peers to continue bullying, and socially isolated students would have opportunities to interact with others more and make new friends. All participating teachers received a copy of Cooperation in the Classroom and received three training days in person, and check-ins by video conference during the course of the 2016-17 school year. Pre-tests and post-tests (online surveys completed by students) evaluated students' bullying and victimization, stress levels, emotional problems, relatedness, and engagement.

After 5 ½ months of the cooperative learning program, results showed:

- There were significant reductions in bullying (ES = +0.37), victimization (ES = +0.69), and stress levels (ES > +0.99) for students who had been shown to be marginalized at pre-test.
- There were reduced emotional problems (ES = +0.30) and greater relatedness (ES = +0.43) for all students, regardless of their feelings of victimization/isolation at pretest.

The authors suggested that comparing to existing curriculum-based programs, cooperative learning was not only effective in promoting achievement and addressing behavioral problems in middle schools but also advantageous in ways such as the sacrifice of instructional time was not needed.

Source: Van Ryzin, M. J., & Roseth, C. J. (2018). Cooperative learning in middle school: A means to improve peer relations and reduce victimization, bullying, and related outcomes. J Edu Psych, 110(8):1192-1201.

Math on a Table Helps Low-Performing Second Graders

By Hassler Hallstedt, M., Klingberg, T., & Ghaderi, A.

PUBLISHED in the *Journal of Educational Psychology*, Martin Hassler and colleagues carried out a randomized controlled trial of a mathematics intervention on tablets (iPads).

The trial involved 283 low-performing second graders spread across 27 urban schools in Sweden. The children were randomized to four groups as follows:

- A group participated in a math intervention called Chasing Planets, consisting of 261 planets on a space map, each with a unique math exercise (addition or subtraction up to 12). Students practiced for 20 minutes a day.
- A group participated in the math intervention combined with working memory training, where students spent an additional 10 minutes each day on working memory tasks.
- A placebo group who practiced mostly reading tasks on the tablet (again for 20 minutes each day), including Chasing Planets-Reading, which had a similar format to the math intervention.
- A control group who received no intervention, not even on improving their skills on the tablets.

The intervention lasted for around 20 weeks, with children completing nine measures at pre- and post-test, and then after 6 and 12 months. It was found that

- Both math conditions scored significantly higher (ES = +0.53–0.67) than the control and placebo groups on the post-test of basic arithmetic, but not on measures of arithmetic transfer or problem solving. There was no additional benefit of the working memory training.
- The effects faded at the 6-month follow-up (ES = +0.18–0.28) and even more so after 12 months (ES = +0.03–0.13)
- IQ was a significant moderator of direct and long-term effects, such that children with lower IQ benefited more than higher IQ students.
- Socioeconomic factors did not moderate outcomes.

The authors regarded that additional math training on tablets, based on behavior analysis and adaptive technology, was a less costly way to increase

low performing students' math skills. They recommended further studies to explore ways to maintain the effects.

Source: Hassler Hallstedt, M., Klingberg, T., & Ghaderi, A. (2018). Short and long-term effects of a mathematics tablet intervention for low performing second graders. J Edu Psychol, 110(8):1127-1148.

ORIGINAL ARTICLE

Evidence-Based Reform in Education: Responses to Critics

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Abstract: In the past two decades, evidence-based reform in education has been gaining momentum worldwide. China is no exception. Though many Chinese scholars have acknowledged the importance of evidence-based reform in education, some remain skeptical. In this paper, we address the three major concerns about evidence-based reform in education and offer some clarifications on the issues raised by critics.

Sci Insigt Edu Front 2019; 2(1):65-69.
Doi: 10.15354/sief.19.ar027

***Keywords**: Evidence-based Reform in Education, China, Critics*

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***Conflict of Interests**: None.*

IN the past two decades, evidence-based reform in education has been gaining momentum worldwide. China is no exception. Chinese researchers have gradually adopted evidence-based methods to study various educational topics such as teachers' emotional labor (Yin, 2017), educational games' impact on student achievement (Duan, 2017), the effect of mobile learning on student achievement (Wang, Dong & Wu, 2017), flipped classrooms (Wang & Hu, 2018), Chinese teaching program interventions (Wang & Gu, 2003) and many others. Experimental research has also been employed to study educational themes including teachers' performance-based salary (Chang, et. al, 2018), teachers' classroom emotions' impact on teaching effectiveness (Qiu, 2014), mobile learning's effect on cross-cultural communicative capability (Wang & Xiu, 2014), educational videos' impact on self-learning effects (Wang, Hao & Lu, 2014) and so forth. The evidence-based movement has also led to establishing a yearly forum in Shanghai on evidence-based reform in education (Wang & Gu, 2015).

An increasing number of Chinese scholars have worked on evidence-based educational research over the years (e.g. Ren, 2014; Yin, 2017; Yuan, 2017). For instance, Prof. Zhenguo Yuan, the current Vice Director of Chinese Society of Education and the Director of Faculty of Education of East China Normal University, wrote a special column entitled "Chinese Education Needs Evidence-based Research" (Yuan, 2017). In the article, Yuan presented OECD's PISA as an example to remove doubts pertaining to the quality of China's basic education by recognizing the importance of PISA as an evidence-based, tangible yardstick to compare educational performance across countries, thus providing persuasive proofs of educational quality. Yuan called for education sector-wide attention to evidence-based research for providing more solid evidence for educational reforms in China.

Though many Chinese scholars have acknowledged the importance of evidence-based reform in education, some remain skeptical. In this paper, we would like to address the three major concerns about evidence-based reform in education.

1. *Evidence-based reform places too much emphasis on the importance of experimental research, which narrows the scope of education research and brings adverse effects on education diversification. Considering the complexity of educational issues, it is difficult for evidence-based research to reveal deep and diverse causal relationships with only experimental research.*

Response: Advocates of evidence-based reform do not favor experiments for every type of research question. There are many research questions better suited to correlational or descriptive methods. Non-experimental research is of great value in theory building and in exploring important variables worthy of inclusion in experiments. For example, the Success for All programs, one of the largest school reform models in the United States, owes a great deal of correlational and descriptive process-product studies when the program first started (Slavin, Madden, Chambers, & Haxby, 2009). However, when the research or practical question is, "How can we improve achievement (or other

outcomes)?" experiments are by far the best methods. In such studies, the question is whether the new program produces better outcomes than what schools do ordinarily, and that is exactly what experiments test. Experimental design, especially randomized controlled trials, is viewed as the "gold standard" in that it eliminates systematic bias and makes judgments about appropriate levels of probability to reject the null hypothesis that there is no difference between the experimental and control groups (Clegg, 2005). As educational reforms essentially comprise individual projects and programs, those with rigorous and strong evidence of effectiveness ought to be given more weight over those only based on principles, and well-evaluated replicable programs ought to be heavily invested in considering the current age of accountability (Slavin, 2005). Today most experiments testing innovative programs use mixed methods, also using observations or questionnaires (Chatterji, 2002; Kozelski, 2017).

2. *Evidence-based reform in education relies on evidence from experimental or quantitative studies. Why can't we use high-quality qualitative research, case study evidence, and even experience as evidence for education improvement? Without qualitative evidence, evidence-based research is tantamount to rejecting a large number of research results. Is this arrogance and prejudice? However, if such results are acceptable, there seems to be no essential difference between evidence-based research and other types of research. How do we resolve this paradox?*

Response: No one is arguing that non-quantitative research should be ignored. A qualitative study or a case study can produce insight or knowledge, but it cannot produce definitely information indicating whether one program is more effective than another, on average. One merit of qualitative studies in promoting educational reform lies in that they point to areas where specific sub-populations' particular needs are not reflected in broader generalizations led to by quantitative studies, which means a single type of generalization is insufficient to represent the reality (Given, 2006). In this sense, qualitative studies can be complimentary to quantitative research in evidence-based reform by revealing layers of evidence that quantitative research does not reach. Shavelson and Towne urged that "randomized field trials be supplemented with other methods, including in-depth qualitative approaches that can illuminate important nuances of practices" (Kozleski, 2017). In other words, qualitative studies more than often address "why" questions, while quantitative studies are intended to address questions related to "how much/many" (Given, 2006). These are both important questions.

3. *In developing countries such as China, experimental research is still lacking. In this case, does the evidence research in developing countries have the same significance as that of developed countries? How should we advance evidence-based research in countries that lack empirical research? What are the more effective and feasible paths?*

Response: It would be ideal to have experiments carried out in China, of course, in both urban and rural settings. However, while the number of studies is building up, it is useful to view experiments from other countries as suggestions for what may be effective in China, with appropriate caution and good sense. For example, foreign studies in settings similar to Chinese ones may be more useful than ones in very different settings.

In the past two decades, we have witnessed widespread application of evidence-based research and experimental studies in Asian settings, including contexts whose settings are similar to the Chinese mainland, such as Singapore, Hong Kong, Taiwan, and Vietnam. The topics explored using experimental research in these settings include mobile learning (Sun, et al., 2016), effectiveness of teaching interventions (Fung, 2014), cooperative learning (Tran, 2014), and information communication and technology (Reyes, 2015). As these issues grow in popularity, the studies in these settings may provide implications for China.

While innovation has become a ubiquitous buzzword, effective evaluations of innovative programs and practices is limited (Yuan, 2017). Evidence-based reform has great potential to enhance the quality of programs students receive and to fuel much interest and investment in development, research, and dissemination of effective approaches. However, evidence-based policies will prevail only if the evidence itself is rigorous and meaningful.

Acknowledgement: We would like to thank Tengteng Zhuang of The Chinese University of Hong Kong for conducting the Chinese literature review for this paper.

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Received: 3 January 2019
Revised: 18 February 2019
Accepted: 21 February 2019

ORIGINAL ARTICLE

An Analysis of the Reform Practice of Weak Schools in Britain: The "Excellence in Cities" Program

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Abstract: "Excellence in Cities" is an educational reform initiative proposed by the British government at the turn of the century that focused on the needs for talent development in the 21st century. The entire program, from pilot to promotion, achieved remarkable results in just three years and was widely watched. This paper reviews the background, implementation process and initiatives of this program, and analyzes the achievements of the program in improving students' academic achievements and learning attitudes, and in improving school social relations. The paper then uses insights from the success of the UK program to recommend key components of such a reform for China.

Sci Insigt Edu Front 2019; 2(1):71-82.
Doi: 10.15354/sief.19.ar024

***Keywords**: The "Excellence in Cities" Program, Weak schools, Education Reform*

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***Funding**: National Social Science Fund "The 13th Five-Year Plan"2016 Education Key Project" Research on Standardization Construction of Compulsory Education Schools" (AHA160006). This work is also supported by the "Jiangsu University Advantages Construction Project Funding Project".*

***Conflict of Interests**: None.*

COMPARED to private schools in the suburbs with well-equipped facilities, adequate funds, and high quality students, most public schools in urban areas of the United Kingdom (UK) are challenged by poor student achievement, quality of education, and school management efficiency. The presence of these weak schools in the city is the result of a long and complicated process. Class differentiation and class opposition have long persisted as ills of British society. To safeguard their own interests, the upper class regards education as an important means to consolidate its dominant position. Ideologically, this suggests that education for the lower classes can be stratified, and that schools should promote this idea in such a way that the people can accept and firmly believe that education should be unequal. Politically, the upper class uses privilege to tilt the policy toward the group in which the class is located, resulting in the polarization of education, and catalyzing the emergence of weak schools.

The UK's "1902 Education Act" established a dual-track education system in which the aristocratic education system (academic education system) and the civilian education system (vocational education system) coexist. This bill allows aristocrats and civilians to be educated along two different paths. The aristocratic education system serves the children of the middle class and above, with the aim of cultivating academic talents and senior management personnel; the civilian education system serves the children of the lower classes of society, with the aim of cultivating the general social workers. Although the "Education Act of 1944" abolished the dual-track system and proclaimed that everyone must have equal access to education, traces of the dual-track system are still obvious (Den, 1987). As quality schools are typically private schools, those attending need to pay high tuition fees; only children from families with higher socioeconomic status are thus eligible to study, and children with poor socioeconomic status can only go to public schools that have poor conditions.

After World War II, the pursuit of educational equity and the improvement of education quality have become the focus of educational reform in various countries. In this context, the UK cancelled the sixth-level entrance exam, established the Comprehensive Middle School and implemented open enrollment (Zhu, 2013). Although this gives all students the opportunity to receive high school education, due to significant differences in performance among students, it is difficult for teachers to provide all children with appropriate daily education and teaching, and the supervision and support of the school is not in place, resulting in the so-called comprehensive middle school becoming a synonym for "educational mediocrity." When Mrs. Thatcher came to power in 1979, she continued to pursue elitist education and introduced "market theory" into the field of education to encourage competition among schools. Under the influence of school choice behavior, the two-level differentiation of education is becoming increasingly serious, and many weak schools face the risk of closure.

Thus, how to improve weak schools in cities and solve a series of social problems caused by uneven education has become an issue of concern to all sectors of British society. To this end, the United Kingdom promoted the "Excellence in Cities" (EiC) in the late 20th century, trying to ease educational disparities among socioeconomic clas-

ses and improve the level of education equity and quality through a series of comprehensive reform measures.

"Excellence in Cities": Planning and Implementation

In March 1999, the British government proposed the EiC program and began implementing it in September of the same year. The EiC program promotes educational equity and enhances education, providing students with a more diverse education by starting with the needs of students and the challenges they face, providing learning opportunities for all capable students, and encouraging cooperation between schools, among other initiatives. Its purpose is to improve expectations and achievements of students, to resolve issues of dissatisfaction, exclusion, truancy and non-cooperation, and increase parents' confidence in urban schools (Department for Education and Employment, 2002). Since implementation of the plan, it has been continuously expanded to cover education in different regions and at various stages; to date, it has included two stages, focus four core values, and seven sub-plans.

Two Stages

Preliminary Experimental Stage

The EiC program initially began as an experiment in the middle school phase of urban areas. This phase lasted for three years. The first year included 25 local education authorities and 438 secondary schools. The second year added 23 new local education authorities and about 300 more secondary schools. In the third year, 58 local education authorities and about 900 secondary schools participated (Kendall, Golden & Machin, et al, 2005). Insights discussed in this article refer to this stage.

Experience Expansion Stage

EiC planned to gradually expand to urban primary schools after the city's middle school experiments had achieved significant results. It was then extended to the poverty-stricken groups outside the city and to the post-secondary education through the "Excellent Cluster" and the "Excellent Challenge" programs.

Four Core Values

High Expectation

Encourage students, parents, and individual students to maintain high expectations for their students. The education of each student should not be restricted by the school they are attending, and conditions should be created to meet their needs and aspirations.

Diversification

Provide a variety of educational methods, including colleges, educational action areas and urban learning centers, to fully tap the potential of students and fulfill the core functions of the school.

School Network

Establish network connections between schools, promote collaboration among schools, and provide more convenient communications for students, parents, and communities. Through The school network promotes excellent practical experience, so that each school can share the reform experience.

Expand Opportunities

Extend opportunity for success to each school and investment to each area of the program, to give all schools the opportunity to succeed and to promote equality.

Seven Sub-Plans

Learning Mentors

A person who has a background in psychology, sociology, or a major national (English or science) degree with an understanding of student guidance is employed as a tutor. The study tutor works with relevant teachers, psychologists, school administrators, etc., and maintains contact with the family to provide one-on-one or one-to-many guidance. This program is designed to provide additional support to students who are plagued by learning difficulties, social problems, or cultural barriers and who may experience difficulty actively participating in classroom activities. The main tasks of learning mentors are to: (1) contact the teacher to determine the need for help; (2) implement and support activities of helping that bolster self-esteem and self-confidence, and provide emotional counseling services; (3) understand the problems that create learning difficulties, and work with students to develop an action plan; (4) supervise the attendance of the mentored students; (5) maintain close contact with parents and regularly hold workshops or group meetings on behavioral strategies and parenting skills; (6) record the performance of mentored students and provide a written assessment report; and, (7) ensure adequate funding for study (Department for Education and Employment, 2002).

Learning Support Units

The unit differs from the regular education of the school. Support units can be established in the school or within educational institutions and universities. This independent support unit is small in size and generally consists of only six to ten students (Hayward, 2002). The aim is to reduce the number of regular school semesters and the exclusion of high-risk students from schools,[1] and to provide a high-risk student with a separate short-term education opportunity in order to keep such students in school, and address

their behavioral problems. After students apply for the support of the learning unit, the management team of the learning unit formulates strategies for correcting and improving their behavior and generates learning plans related to the school curriculum according to the actual needs of the students, so that these students can return to mainstream education as soon as possible. Once a student enters the learning support unit, they must be allowed to leave until they return to the level required for mainstream education.

City Learning Centers

The city learning center is an innovative experimental platform that provides students with the latest Information and Communication Technology (ICT) teaching. It not only serves the host school, but also provides services and development support for surrounding schools and the community. It offers different levels of course packages to schools, including innovative and reproducible lesson plans, fun extracurricular activities, and new ways to use multimedia technology in the classroom to match students of any age and any level of learning (Department for Education and Employment, 2002). The city learning center aims to provide remedial courses for students who are lagging behind in school and to provide opportunities for gifted children to learn at accelerated rates. To maximize the efficiency of the ICT resources used, the city learning center uses a star network topology to cover multiple schools. This encourages cooperation between schools, and exchanges on the basis of resource sharing.

EiC Action Zones

The urban area of excellence is designed to meet the knowledge needs of rural and urban disadvantaged groups, aiming to improve school standards in poor areas and empowering weak schools through the sharing of successful case experiences and through incentives, innovation and change. In the education action area, schools are allowed to have a certain range of statutory discretion, especially in terms of teachers' salaries, work environment and curriculum. Schools can formulate implementation plans to improve the standards of the school (Department for Education and Employment, 2002). To enable education to better access resources, dynamic partnerships among schools and between schools, parents, communities, businesses and local education authorities are formed in the urban area of excellence, encouraging partners to address issues and look for better, innovative solutions (Office for Standards in Education, 2003).

Specialist Schools

The College Program is designed to help schools choose their dominant disciplines as a specialty, and work with private sponsors to improve school standards. Weak schools can choose one or two fields from the eight fields of: technology, language, sports, art (visual, performance, or media), business and enterprise, engineering, science, and mathematics and computer application, according to the characteristics and advantages

of the school. A school that chooses to specialize can then apply to become a "college".[2] However, in addition to focusing on the development of its own distinctive areas, the college must also meet the requirements of the national curriculum and be committed to providing a diverse and balanced education to all students (Institute of Education, The University of Warwick, 2002).

Beacon Schools

The Beacon School Program aims to create a collaborative and shared atmosphere with the aim of establishing a nationwide network of schools. Quality schools play a guiding role in the network as a "Beacon." Through online and offline communication, a Beacon School can share successful experiences with weaker schools to ensure that all schools receive practical advice and support to improve the schooling and student achievement of weak schools. The program encourages Beacon Schools to establish partnerships with weak schools through "pairing" and on this basis promotes two-way knowledge exchange between professionals. The Beacon Schools provide demonstrations in a variety of areas including: specific subject topics, student monitoring, school management, services for gifted children, improved parental involvement, special education needs and anti-bullying strategies. Diverse forms of promotion are undertaken, such as organizing teacher seminars; regularly organizing activities for weak schools to visit and study at the Beacon Schools; assisting and counseling the work of junior teachers in weak schools; and promoting the successful teaching experience of the Beacon Schools through the Internet (Bullock & Muschamp, 2004).

Genius Program

By developing a standard for identification procedures, each school recognizes 5%-10% of talented students joining the program's teaching and learning (Department for Education and Employment, 2002) In terms of curriculum, the Genius Program requires all schools to develop and implement a specialized teaching and learning program based on the needs and expectations of gifted students that addresses the individual learning needs of gifted students. Schools are encouraged to provide a wider range of courses for these talented students through a local network within the scope of the statutory curriculum, so that talented students can get extracurricular or advanced learning opportunities. Each school is required to provide a full-time coordinator for talented students to coordinate partnerships with schools, local education authorities, and other parent organizations to provide external support for the development of gifted students (Cunningham, Lopes & Rudd, 2004)

Effectiveness of the "Excellence in Cities" Program

The EiC program is one of the top policies in the UK government to improve the schooling level of weak schools in urban areas. From September 1999 to the expansion of thousands of high schools across the country, the EiC program has achieved remarkable results. In February 2005, the Office for Standards in Education (Ofsted) published an evaluation report on the first phase of the EiC pilot school. The results showed that the EiC program improves students' academic achievement and improves their learning attitudes. The school's social relations and other aspects have achieved remarkable results (Kendall, et al, 2005).

Academic Achievement

According to the EiC Program Data Report, published on the Ofsted website in February 2005, the General Certificate of Secondary Education (GCSE) score was 5 or above in schools participating in the EiC program.[3] The number of students has increased by 3.4% (Kendall, et al, 2005) In Key stage 3, [4]EiC school English scores increased by 5.9%, mathematic scores by 8.8% and science scores by 1.9%, compared to 5%, 6%, and a decrease by 1% in non-EiC schools for English, mathematics, and science scores, respectively. Since the program began in 2000, in Key stage 2, the English and mathematics levels of EiC program schools have greatly improved compared to that of non-EiC schools. In EiC schools, English increased by 3.7% and mathematics by 3.0%, which compared to 2.3% and 2% in non-EiC schools, respectively. In science, however, EiC program schools do not perform as well as schools not in the EiC programs (Office for Standards in Education, 2005) However, this one result does not deny that the EiC program has a significant impact on the academic achievement of students in the pilot area. Stephen Machin and Sandra McNally (2003) show that the EiC program has significantly improved the academic achievement of middle school students in poor areas, with the effect on student grades proportional to the time spent in the EiC program (Machin, McNally & Meghir, 2003) Further study showed that students in the EiC program have made greater progress in mathematics and English. For example, EiC student math scores increased by an average of 0.18 (from 4.75 to 4.93), while for students in the control group, grades rose by 0.14 (from 4.78 to 4.92), and secondary school students outside the EiC program increased their grades by 0.16 (from 5.19 to 5.35) (Machin, McNally & Meghir, 2004).

Learning Attitude

The EiC program focuses on students' learning attitudes, such as dissatisfaction, exclusion, violation of discipline, and, especially, truancy. Therefore, ensuring student attendance is one of the priorities of the program. According to the Student Education Attendance Data Analysis (Interim Report) published by the Ofsted in 2004, the overall average attendance rate in 2002 was 91.98%, up from 91.54% in 2001. The highest overall attendance rate is in the 7th grade (92.8%). In other grade groups, the 8th grade attendance rate is significantly higher than the 9th and 10th grades, but within the 10th

grade, the 2002 attendance rate (91.8%) is 0.8% higher than the 2001 attendance rate (91%) (Morris & Rutt, 2004).

In addition, in January 2000, the student's authorized absenteeism rate was 8%, while the unauthorized absentee rate was 1.1%. In February 2002, student absenteeism rate decreased due to a decreased authorized absenteeism rate of 7.63%., and an unauthorized absentee rate was 1.09%. Key Stages 1 and Key Stages 2 authorized absent rates fell by 0.17% and 0.21%, respectively (Key Stages 1 fell from 8.76% to 8.59%; Key Stages 2 fell from 9.08% to 8.87%). More than one-third (33.9%) of the 343 students who participated in the assessment had an authorized absence of one week or less, and only 1% of students were authorized to be absent for one semester or longer (Kendall, et al, 2005). According to the University of London School of Education's Behavior Improvement Program (BIP), the student's fixed-term exclusion rate fell by 11% in 2003 compared to the previous year, while primary school attendance rose by 0.4%. Authorized and unauthorized absenteeism rates significantly decreased (0.3% and 0.1%, respectively) in primary schools (Office for Standards in Education, 2005). These data indicate that the EiC program is effective in improving student enrolment and attendance.

Impact on School Social Relations

To better promote the quality improvement of weak schools, EiC encourages the establishment of dynamic partnerships between parents, communities, enterprises, and governments. This partnership effectively provides external support for weak school reforms. With the advancement of the EiC program, the gap between schools in the EiC program area and other schools has gradually narrowed. Parents have begun to have greater confidence in urban school education, to be more concerned about their children's performance in school and to actively participate in school-organized family education seminars, parent evenings, school development seminars, and various home-school interactions. Communities and businesses are also more widely involved in school activities; special activities related to hiring companies are increasing, such as work-related learning opportunities, creation of micro-enterprises, and factory open days. By partnering with businesses and communities, schools receive significant external support, enabling schools in the EiC region to continually maintain and increase their connections with job providers and trainers (Kendall, 2004). The relationship between government and schools has also improved. In 2003-2004, the level of overall cooperation between EiC schools and local education authorities was almost four times that of non-EiC programs (2% in the EiC program area compared to 0.5% in the non-EiC program area) (Office for Standards in Education, 2005).

Insights for China

The EiC program has gone through a lengthy process from release to implementation to the formation of a complete weak school reform system. Although there are some shortcomings, it has had a significant impact on improving the quality of school education, improving student behavior and school social relations. While differences between China and Britain are extensive, the EiC plan can still provide insight into the improvement of weak schools in China. In particular, we suggest that the following lessons be heeded.

Provide Appropriate Education to All Schools and Students

In the process of reforming weak schools, we must "complement short" and "improve." Many factors contribute to poor academic performance in students. The "one-size-fits-all" education reform program cannot give every school a practical reform opinion and advice. In the face of the predicament of education reform, providing suitable education for all schools and students should be the demand of current educators. Education reform must pay attention not only to regional differences, but also to differences between schools and students. Reforms should give the school more autonomy so that the schools and students can create development goals according to their own advantages, allowing the reform of weak schools to build from the inside.

Participate in Multiple Subjects and Give Full Attention to All Aspects of Society

The reform of weak schools takes time and is difficult to achieve by relying solely on the school or the education sector. Reform requires human, material, and financial resources as well as support from the external environment. Due to the shortage of educational resources in China, including a current lack of education finance, schools need to actively seek external support in order to accelerate the process of weak school reform. Establishing partnerships between schools and local governments, social groups, and families can provide more resources for weak schools. Specifically, through cooperation with local education, the education administration can better understand the needs of schools and strengthen the pertinence and effectiveness of policies (Que, 2004). By cooperating with social groups, such as enterprises, museums, and universities, it is possible to provide schools and institutions with opportunities and places for further study. Cooperation with families, including parent participation in school teaching and affairs management, can enhance parents' understanding of reform and reduce resistance to school reform. Efforts should be made to establish a four-way collaboration between the school, the local education bureau, social groups, and families to gain more external support for development and weak school reform.

Systematic, Complete School Improvement Strategy

Weak school reform is a complex process. A systematic and complete school improvement strategy can make reforms more efficient. Before the reform plan is formulated, the current status of schools and their needs can be assessed through questionnaires to establish the main purpose of the reform. A practical action plan should be formulated for the purpose of reform. The plan is divided into multiple sub-plans based on different aspects of the reform, and detailed provisions made for the funding, management, supervision, and evaluation of each sub-plan. For example, regarding financial aspects, the reform plan should elaborate on the fund allocation of the reform and the application conditions and use rights of the school. In terms of administrative aspects, the responsibilities of the main body at all levels, as well as the review requirements and timing for regular evaluations must set. In terms of school management, the school itself is in a weak school. What autonomy is in the reform and how the internal departments of the school are set up should be clarified in the plan. At present, plans for the reform of weak schools in China are relatively fragmented and lack a systematic approach. To a certain extent, this has led the government to repeat uneven distribution of educational financial resources. Therefore, although the government has introduced many plans for reform, significant results have yet to be realized.

Advocate the Reform and Innovation of the Cooperation Network

Establishing and utilizing a nationwide network of schools can provide an efficient way to communicate weak school reforms. Internet technology can enable online and enhance offline communication across national school networks. In online platforms, high-quality schools or weak schools with successful reforms can share their experiences and provide repeatable reform models. Weak schools can learn from the successful experiences of schools with similar problems that have successfully reformed. In the online school network, high-quality schools in the region can establish helping partnerships with weak schools and conduct one-on-one or one-to-many mentorship among schools. This national cooperation network serves to create an atmosphere of cooperation and sharing.

Notes:

1 *The principal has the right to exclude students with high-risk characteristics, either temporarily or permanently; that is temporary or permanent departure from the school. Students who have one of the following characteristics can be called high-risk students: failing in pastoral support programs or other interventions; tending to be permanently excluded by the school; seriously disrupting classroom order and failing to improve through normal support strategies.*

2 In addition to developing a 4-year development plan, a weak school must raise £50,000 in private sector sponsorship before applying for a "college" qualification.

3 The UK GCSE exam converts test scores to grades represented by letters or numbers. The new 9 to 1 rating is consistent with the old A to G rating, where G, F, E, D, or 1, 2, and 3 are GCSE's primary qualifications; C, B, A, A*, or 4, 5, 6, 7, 8, 9 are secondary qualifications for GCSE. Level 2 is more popular.*

4 The UK curriculum is set up in five key stages. Key Stage 1 are grades 1-3, students ages 5-7 years; Key Stage 2 are grades 4-5, students ages 8-11; Key Stage 3 are grades 7-8, students ages 12-14; Key Stage 4 are grades 10-11, students 15-16 years-old; Key Stage 5 are grades 12-13, and students are 17-18 years old.

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Received: 1 December 2018
Revised: 18 February 2019
Accepted: 21 February 2019

Science Insights Education Frontiers
ISSN: 2578-9813

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Science Insights Education Frontiers
Vol. 2, No. 1, 2019

ISSN: 2578-9813
DOI: 10.15354/sief