



The Implementation Effect Evaluation Report of the New Educational Initiative



Dataway Horizon
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The Implementation Effect Evaluation Report of the New Educational Initiative



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1. General Information

(1) Research Background and Purpose

The New Educational Initiative (NEI) was established in 2000, since when its four changes and ten actions have been carried out all over China and led to a series of important achievements. At this critical point of NEI's development, Jiangsu Changming Education Foundation authorized Dataway Horizon to conduct an independent, third-party evaluation of the effects of the NEI. This report summarizes NEI's development, evaluates the implementation status, and offers suggestions for NEI's future development. The summary could contribute to a more widespread adoption of NEI, while the evaluation provides an opportunity for reflection. In terms of reviewing its development, the NEI should keep abreast of international education standards. This report explores the advantages and disadvantages of current NEI and sets benchmarks for NEI based on the international advanced education evaluation system. Finally, this report synthesizes NEI's overall development and status so that suggestions for NEI's future development can be made.

(2) Evaluation Approach

The core for NEI's evaluation approach is the Concentric Circle Analysis (CCA) method. The CCA method continuously expands from the core evaluation target at the center, with the distance of each circle to its core indicating the closeness of its relationship to the target. From the centre, the circles are Core Circle, Participation Circle, and Peer Circle.

NEI is the key target of this research. CCA core circle indicates the leaders, advocates, and organizers of the research target. Thus, in the case of NEI, the core circle refers to the head of NEI, the heads of the experimental areas and the heads of education bureaus; the participation circle includes teachers, students, and parents who are closely involved in NEI; the peer circle covers stakeholders of the education industry who are not personally involved in NEI, as well as peripheral followers. This research makes a comprehensive and scientific evaluation by analyzing the opinions and views of different circles' subject related to NEI.

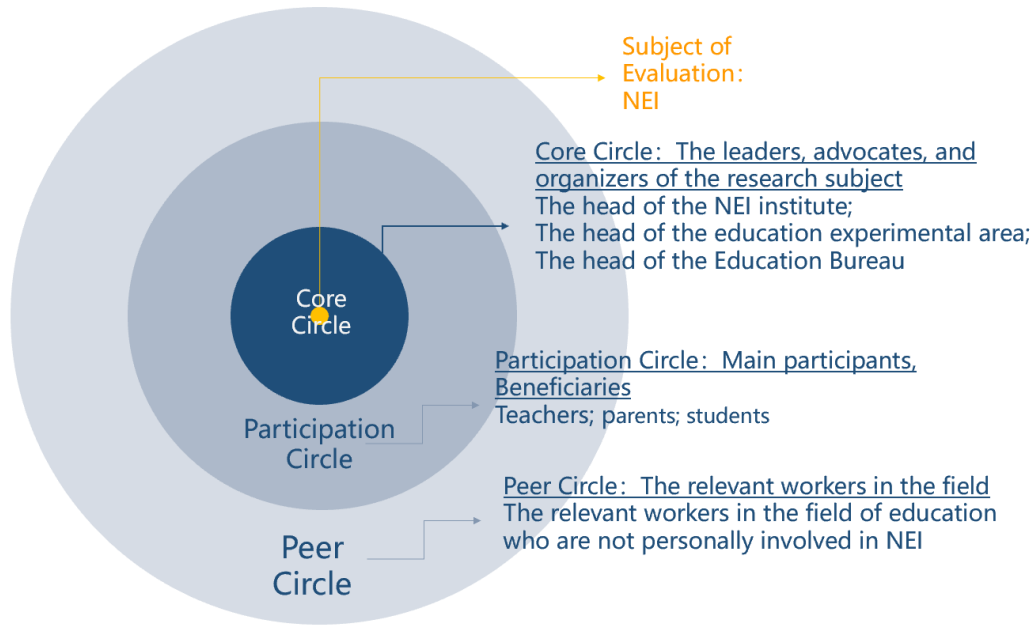


Figure: Concentric Circle Analysis

(3) Evaluation Content

a. Effect Evaluation: Evaluation of NEI's Implementation effect

The following aspects of NEI have been evaluated based on the international advanced education evaluation system:

- Comprehensive Effect: The actual effect on the growth of students and the development of teachers.
- Future-oriented: Focus on education's future developing trends and requirements.
- Innovative: To initiate new applications of technology or educational methods.
- Reformative ability: To make positive impact on the education system.
- Sustainable: Achieving long-lasting, reproducible results.

b. Future Prospects: Suggestions for NEI's Future Development

This research summarizes NEI's development and puts forward suggestions on its future development.

(4) Methodology and Sample Size1

This report uses a combination of qualitative and quantitative methods to comprehensively evaluate NEI's development and implementation effect:

a. Qualitative Research

a) Literature Review

This research collects and evaluates the reports, comments, and other material related to NEI so that its development context, innovation characteristics and practical effects can be sorted out and summarized.

b) Interviews

In-depth interviews were conducted from 26th to 27th April 2020. A total of 8 interviews were conducted, including an expert of education industry, the head of a district/county Education Bureau, principals, teachers and parents of students. The interviews covered the typical regions for NEI's application in Jiangsu, Shandong, Shanxi, Hebei, Fujian and other provinces.

¹ See the appendix for a detailed introduction of the evaluation method and sample background information.

Table: Interviewees Distribution

| | Interviewees | Provinces | Area | Sample Size |
|----------------------|--|-----------|--|-------------|
| Core Circle | The head of the district/county's Education Bureau | Jiangxi | Dingnan Experimental Area of Ganzhou, Jiangxi Province | 1 |
| | Principals | Shangdong | The Main Urban Area of Rizhao, Shandong Province | 1 |
| | | Hebei | Qiaoxi Experimental Area of Shijiazhuang, Hebei Province | 1 |
| Participation Circle | Teachers | Liaoning | Shenyang Experimental Area of Liaoning Province | 1 |
| | | Jiangsu | Wujin Experimental Area of Changzhou, Jiangsu Province | 1 |
| | Parents | Fujian | Tongan Experimental Area of Xiamen, Fujian Province | 1 |
| | | Shanxin | Jiangxian Experimental Area of Shanxi Province | 1 |
| Peer Circle | Education expert | Beijing | Haidian Experimental Area of Beijing | 1 |
| Total | | | | 8 |

b. Quantitative Research

The quantitative research consists mainly of online questionnaires conducted from 25th to 31st April 2020. The respondents include teachers, students² and parents throughout 10 NEI practice areas such as Jiangsu and Zhejiang for eastern provinces, central provinces including Henan and Hubei, and western provinces including Gansu and Sichuan and Xinjiang Uygur Autonomous Region. A total of 2027 valid samples were collected in the survey. At 95% confidence, the sampling bias is $\pm 2.2\%$, which belongs to the acceptable error range.

Table: Quantitative Sample Distribution

| Category | Sample Type | Sample Size |
|----------------------|---|-------------|
| Participation Circle | Teachers (Staff of competent departments and administrative of school and personnel of educational research institutions) | 471 |
| | Students | 320 |
| | Parents | 1236 |
| Total | | 2027 |

Table: Experimental Area Distribution

| Experimental Area | Sample Size |
|---|-------------|
| Haimen Experimental Area of Jiangsu Province | 188 |
| Jiangyan Experimental Area of Jiangsu Province | 104 |
| Xinyi Experimental Area of Jiangsu Province | 70 |
| Xiaoshan Experimental Area of Zhejiang Province | 70 |

² Considering the students' independent expression ability, the interviewed students are mainly from grade 6 to grade 9.

| Experimental Area | Sample Size |
|---|-------------|
| The Main Urban Area of Jiaozuo, Henan province | 111 |
| Luoyang Experimental Area of Henan province | 76 |
| Suixian Experimental Area of Hubei province | 64 |
| Kuitun Experimental Area of Xinjiang province | 971 |
| Yuzhong Experimental Area of Lanzhou city of Gansu Province | 270 |
| Wuhou Experimental Area of Chengdu, Sichuan province | 103 |
| Total | 2027 |

2. Development of NEI

From the establishment of the first experimental school to the NEI that currently involves more than 5,200 schools and nearly 6 million teachers and students, the development of the NEI has overcome many challenges and difficulties. However, NEI's educators always believe that "there will be gains from action, and the miracles are from perseverance", and firmly move toward their educational aspiration of truth seeking, kindness, and virtue advocating. Reviewing NEI's development process, its development has gone through four periods: preparation, establishment, growth and completion.

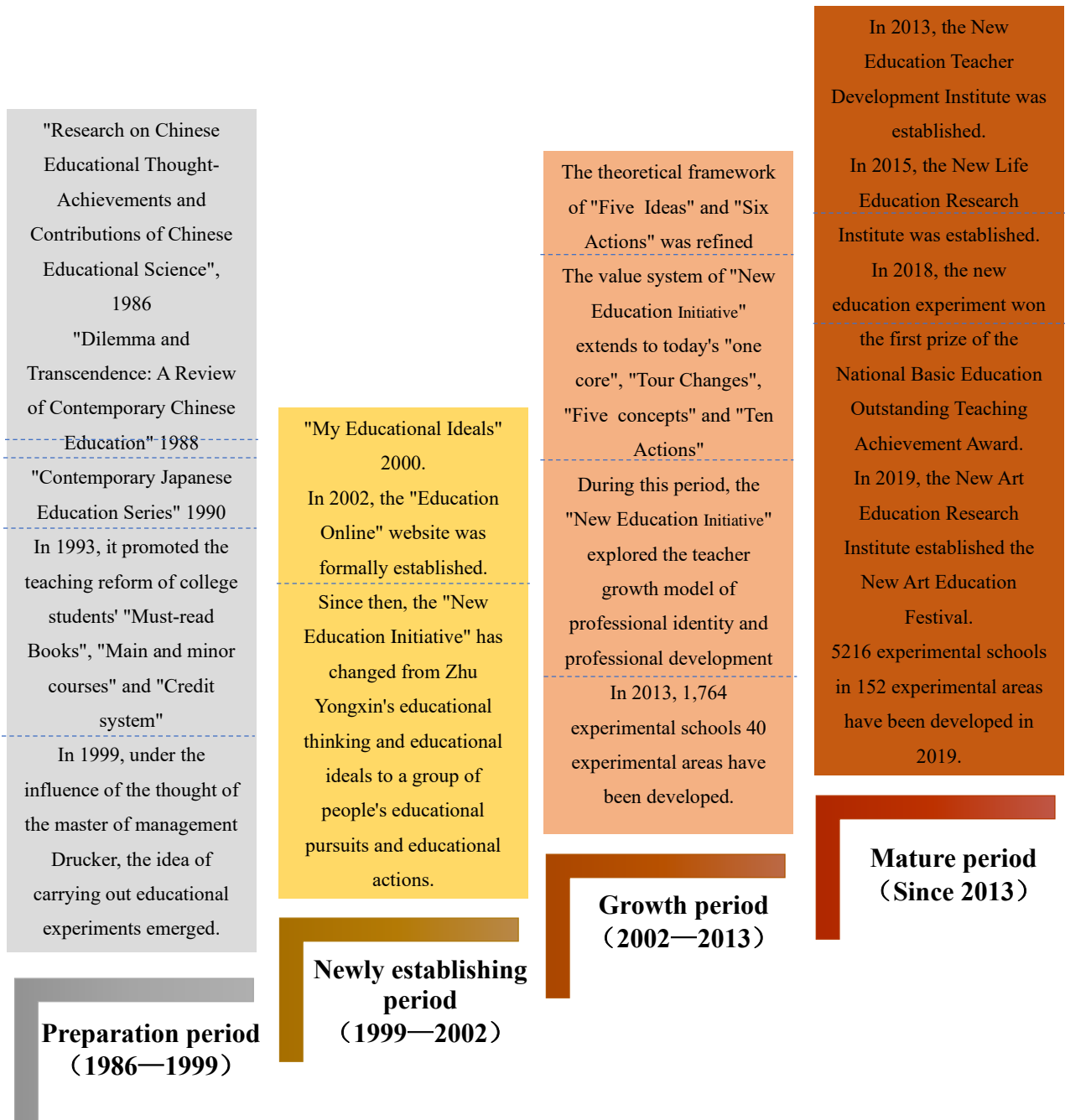


Figure: NEI's Development History

3. Main Conclusions

(1) Comprehensive Effect: A Majority of Respondents Feel Positively toward NEI.

The results of the survey of teachers, parents and students who have participated in NEI show that NEI's effect in the experimental area is remarkable, and the promotion of NEI, the initiative of "ten actions" and NEI courses are widely accepted by teachers, parents and students.

Firstly, among respondents who participated in NEI, more than 60% of the parents have a clear understanding of NEI and 71.9% of the students share the same feeling, while only 7.5% of the students do not have clear understanding of NEI.

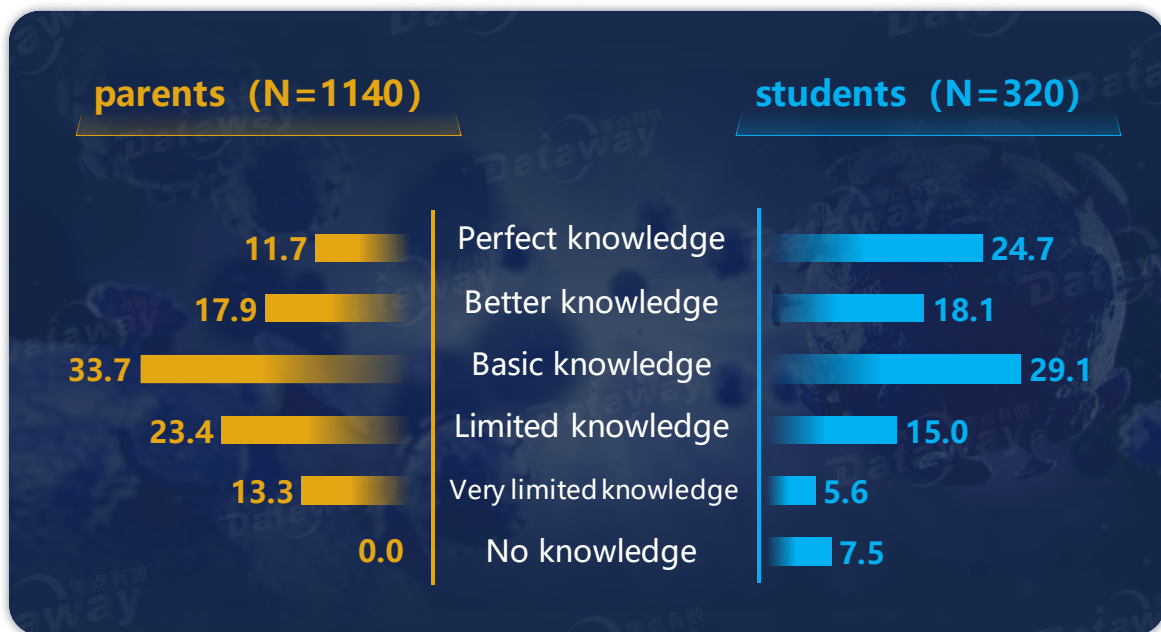


Figure: Parents and students' knowledge of NEI (Parents, N=1140; Students, N=320; %)

Secondly, students are the core of education, it is important to evaluate whether NEI is effective for students' growth. "Ten Actions" has been advocated by NEI in the past years, this research analyses NEI's effects on the growth of students from parents, teachers and students' perspective. Thus, more than 90% of the teachers believe that the "Ten Actions" can help children's growth. Among the 10 actions, more than 80% of the teachers believe that "Create school environments that promote reading, proactive and creative learning" and "Form collaborative education system between schools and families" are very helpful to children's growth.

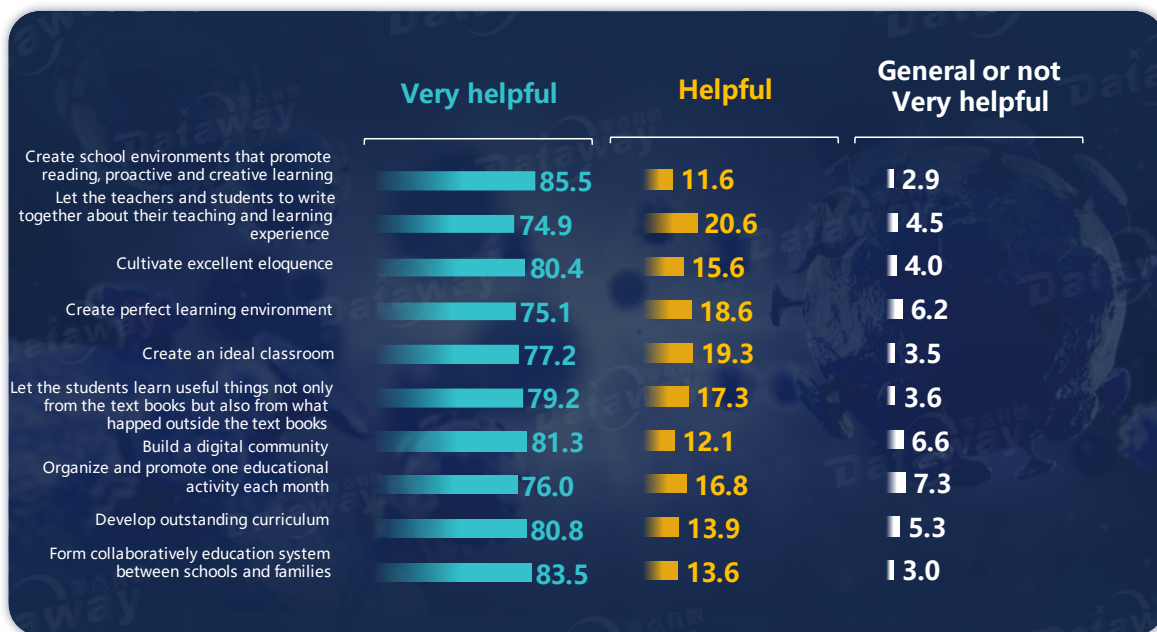


Figure: Teachers' Evaluation of the Effect of NEI Activities on Children's Growth

(N=470, %)

Teachers believe that the three most effective actions are "Create school environments that promote reading, proactive and creative learning", "Form

collaborative education system between schools and families" and "Cultivate excellent eloquence", which scored 95.7, 95.2 and 94.2, respectively.

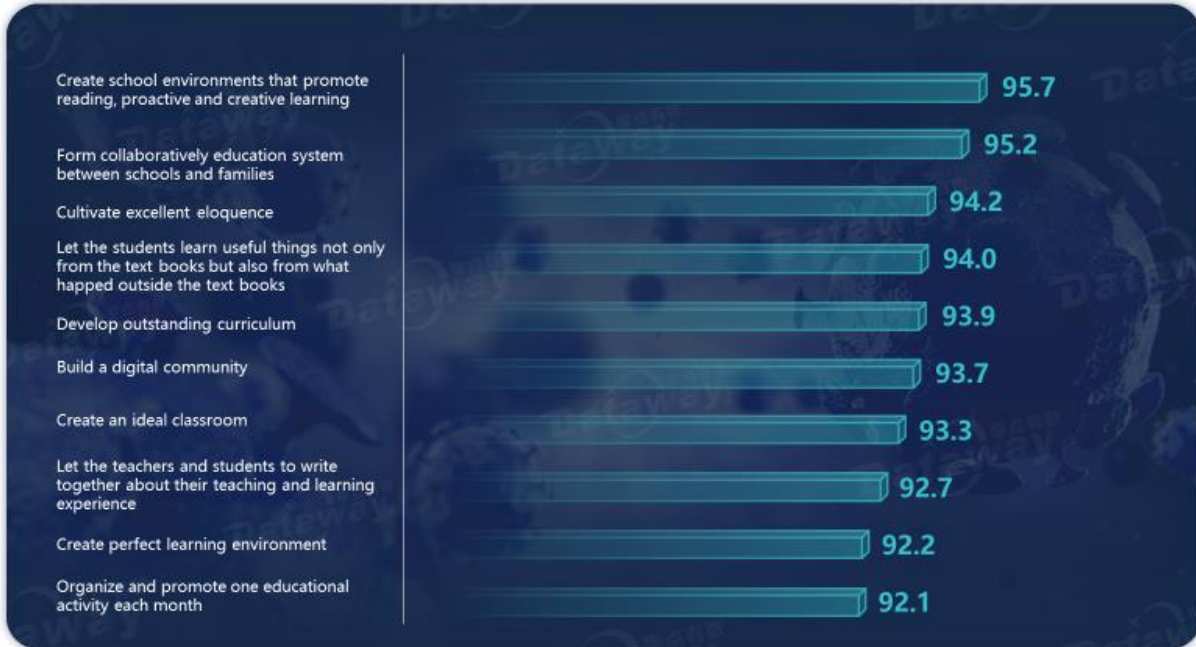


Figure: Teachers' Evaluation of the Effect of NEI Activities on Children's Growth

(N=470; totally 100 points)

Parents and student participants of the "Ten Actions" spoke highly of them and gave excellent scores³ of 85.49 and 86.25, respectively. Among those, 88.1% of parents and 90.9% of students believe that the "Ten Actions" are helpful for students' study and personal growth.

³ According to the general grading standard of Dataway Horizon's satisfaction evaluation: > 85 points is excellent level, 75-85 (including 85) is good level, 60-75 (including 75) is qualified level, and ≤ 60 points is unqualified level.

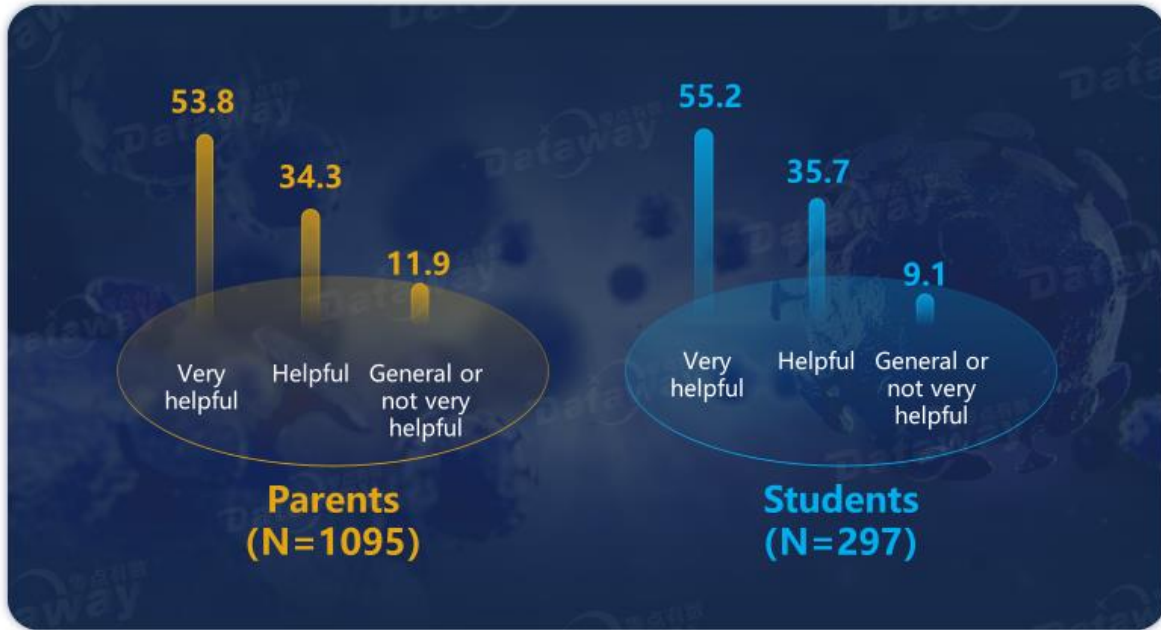


Figure: Evaluation of the Effect of Parents and Students on “Ten Actions”

(Parents, N=1095; Students, N=297; %)

Finally, based on the effects of the NEI courses, more than 90% of the teachers believe that NEI courses are helpful to the children, while about 5% of teachers find NEI’s effects average or not very helpful. Of all the NEI courses, 85.7% of the teachers voted "reading, writing, and drawing courses" as the most helpful course for children's study and personal growth, while "home-school cooperation courses" and "morning recitation, afternoon reading, twilight introspection course" are highly praised by 97% of the teachers for children's personal growth.



Figure: Teachers' Evaluation of the Effect of NEI Courses on Children

(N=470,%)

From the given score of each course from the teachers, the score of each course is more than 90, which is in the excellent level. Among them, "reading, writing and drawing course" and "home-school cooperation courses" got the higher scores of 95.6 and 94.7.



Figure: Teachers' Evaluation of the Effect of NEI Courses on Children

(N=470; totally 100 points)

Parents and students rated NEI courses very highly, awarding scores of 83.37 and 84.78, respectively. Among these, 84.9% of the parents and 87.7% of the students consider it helpful for their children or themselves to participate in NEI courses.

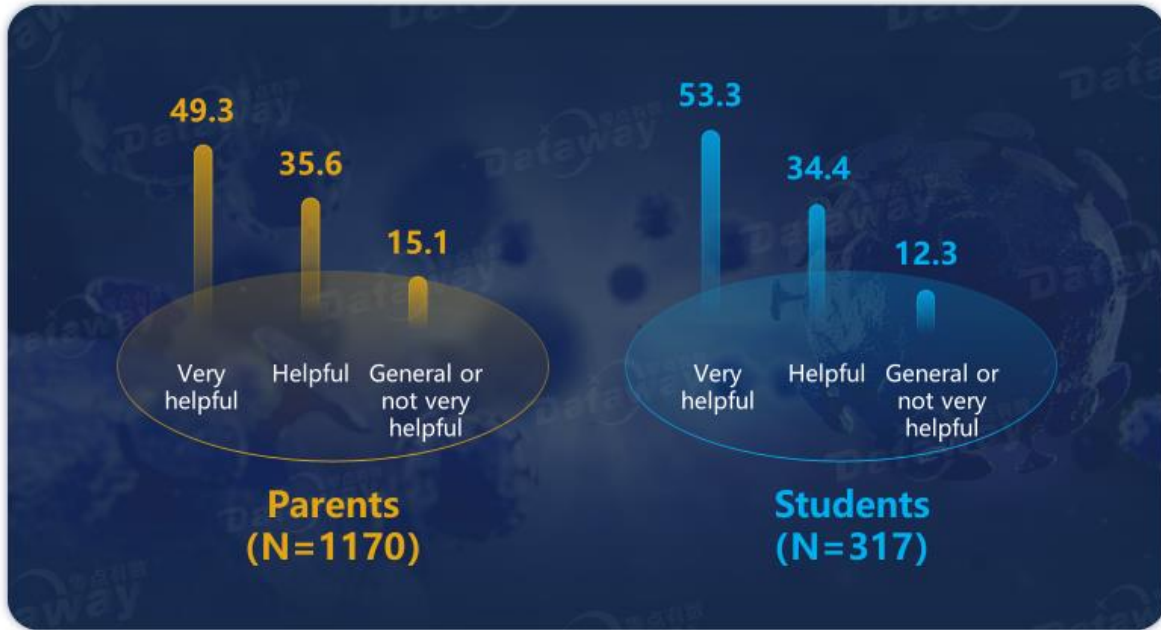


Figure: Evaluation of the Effect of Parents and Students on the NEI Courses

(Parents, N=1170; Students, N=317;%)

(2) Teachers' sense of Accomplishment: More than 90% of Teachers Consider NEI Curriculum Training to be Beneficial.

The priority in student development is to train the teachers properly. NEI provides development opportunities for passionate educators who want to make changes, providing offline training centers, as well as online NEI training for teachers.

The survey of 457 teachers who have participated in NEI online training shows that more than 90% of them consider the NEI curriculum training to have improved their work, and more than 75% of them consider NEI curriculum training to have helped them tremendously.

Of all the seven curriculums, "workshop of schools and families" and "practical program training" received the highest praise. About 97% of the teachers indicate these curricula helped them, and more than 80% of the teachers indicate these curricula helped them a lot. However, 8.3% of the teachers indicate that "one educational activity each month" was average or not very helpful.



Figure: The NEI Curriculum Training Assessment

(N=457, %)

All the seven curriculums are considered helpful, their scores given by the teachers are all above 90, which is in the excellent level. Among them, the scores of "practical program training" and "workshop of schools and families" are all above 95; while the scores of "create perfect learning environment" and "one educational activity each month" are relatively low, which could be promoted in the future.

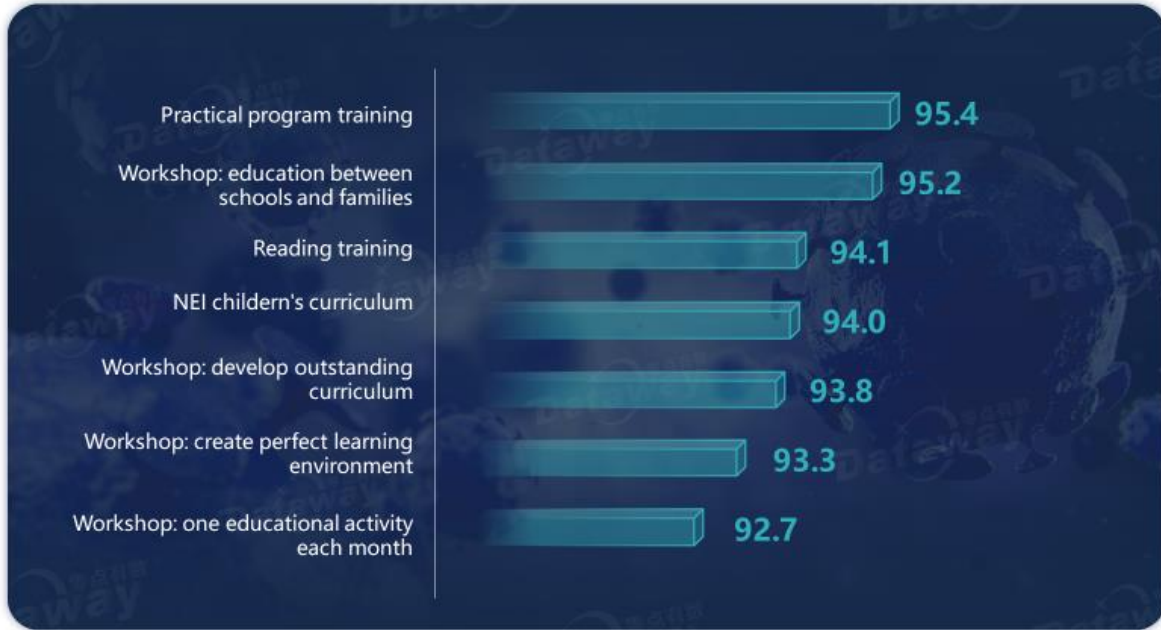


Figure: The NEI Curriculum Training Assessment

(N=457; totally 100 points)

Since taking part in NEI, the teachers have improved in various aspects. The effect can be mainly seen from the following three aspects: promotion of teaching ability (62.4%), broaden education horizon (61.8%), improvement of students (57.8%). Only 0.2% of the teachers consider NEI curriculum training to not have had any practical effect. The survey shows NEI curriculum training is well organized and helpful.



Figure: The Achievements of Participates in the NEI (N=471, %)

(3) The Improvement of Students' Abilities: Reading and Communication Abilities Improved the Most.

The improvement of students' abilities is also an important indicator of NEI's effectiveness. According to the feedback of teachers, parents and students, NEI has improved students' reading interest and ability, communication ability, oral expression ability, writing ability, mathematical interest and ability, and scientific interest and ability. Less than 20% of parents and students and 10% of the teachers consider that students' abilities have not been improved by NEI. Among all the abilities, students' reading interest, reading ability, communication ability, and oral expression ability have been improved the most.

From teachers' perspective, the improvement of reading interest is the most significant. 64.8% of teachers found that students' reading interest has improved significantly, while 98.6% of teachers think it has improved. The next most appreciated improvement is that of writing ability, with 98.1% of teachers finding that students' writing ability has improved.

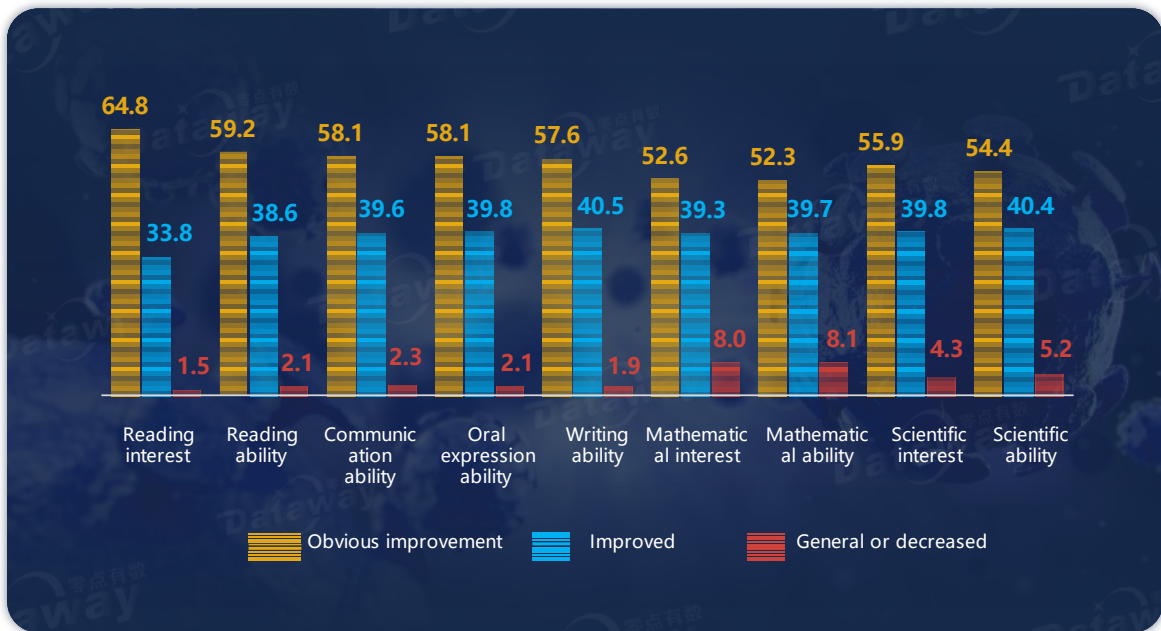


Figure: Teachers' Perspective: Evaluation of Students' Overall Abilities Change (N=471, %)

From parents' perspective, more than 80% found that their children's abilities have improved. Among those abilities, the improvement of verbal expression, reading interest and ability and communicativeness are the most significant, so that more than 90% of the parents think that their children's ability in these aspects has been improved; the performance of mathematical ability and

mathematical interest is relatively poor so that 15.1% and 14.0% of parents think their children's ability has not been improved in those areas.

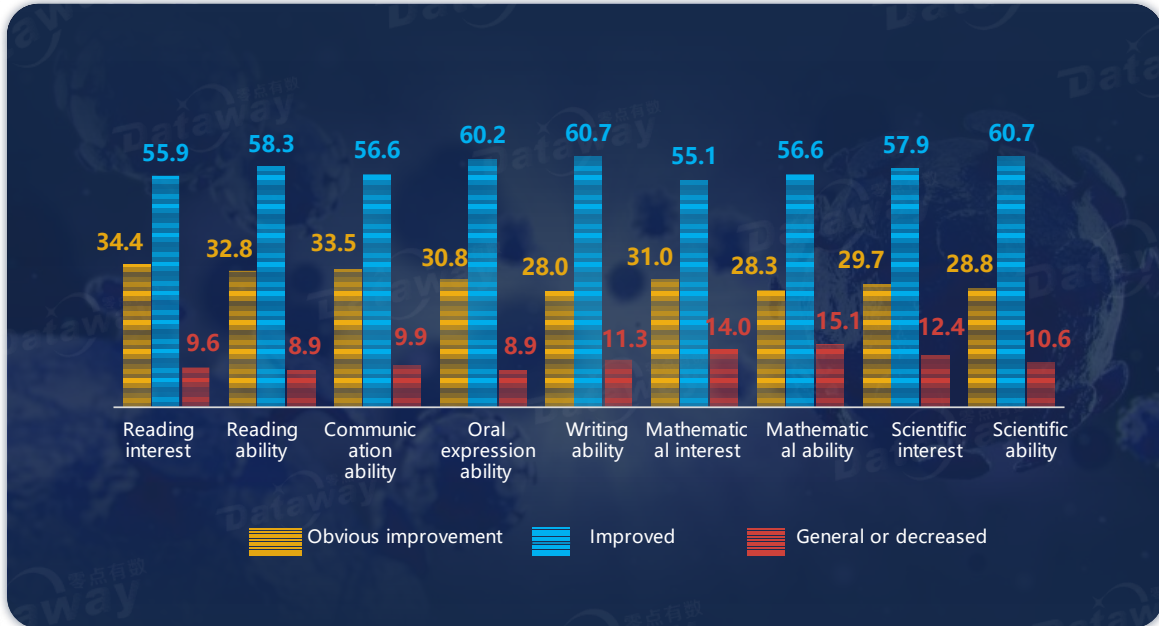


Figure: Parents' Perspective: Evaluation of Students' Overall Abilities Change
(N=1208, %)

From the students' perspective, more than 90% believe their ability in these areas has improved. Among them, the improvement of verbal expression, reading ability, and communication interest are most significant.

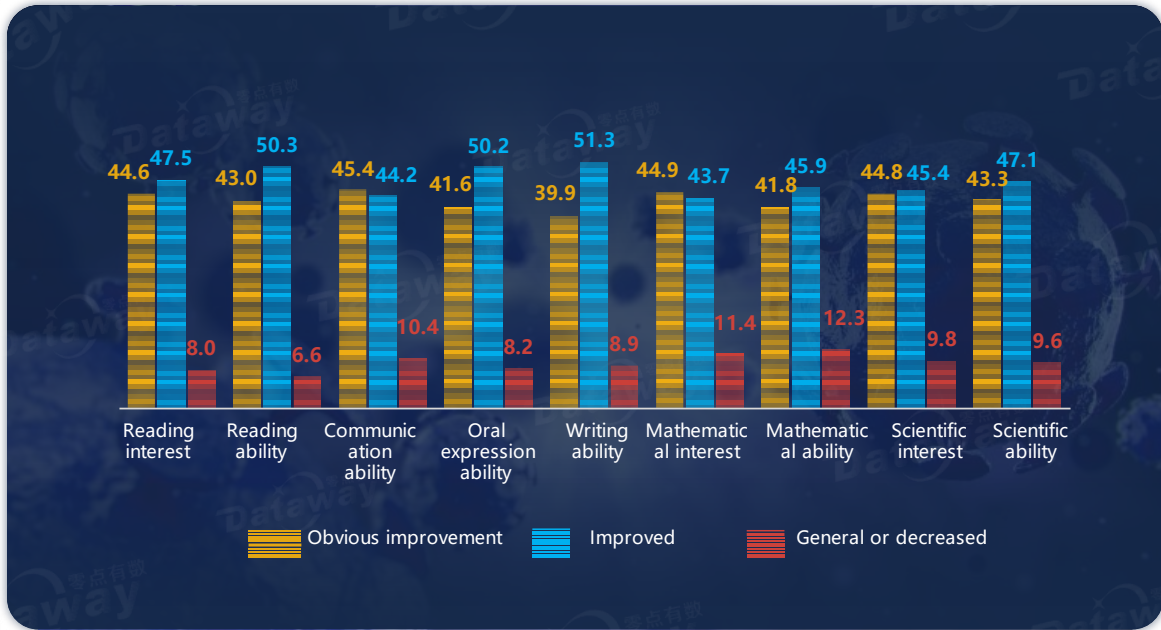
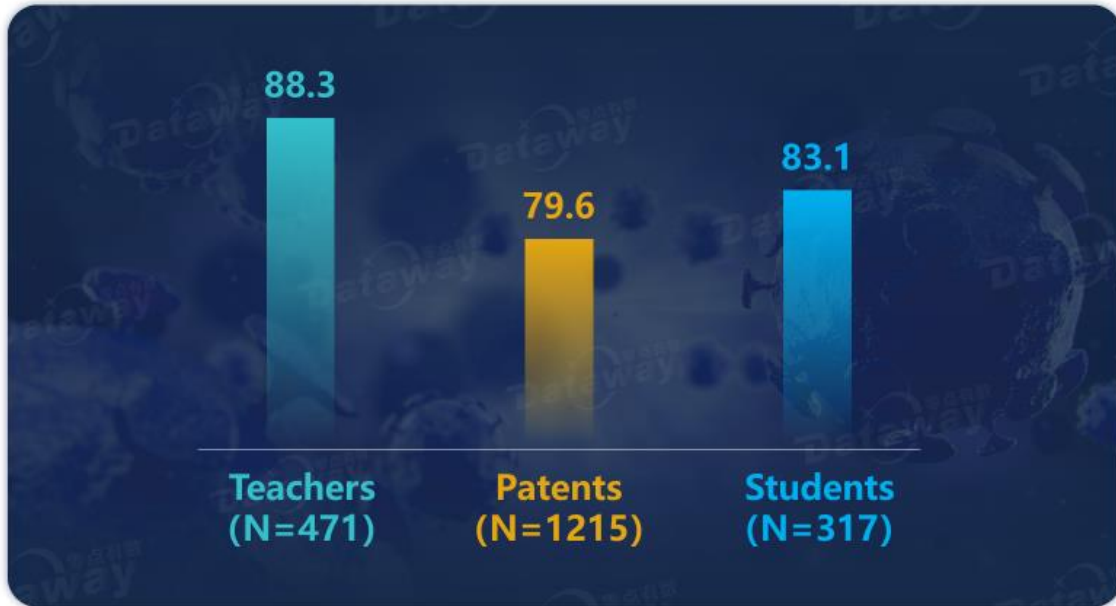


Figure: Students' Perspective: Evaluation of Their Own Overall Abilities Change
(N=317, %)

In addition, compared with the excellent scores given by teachers (88.3), parents and students gave relatively low scores to the improvement of students' overall ability, which are 83.1 points and 79.6 points (in the good level).



*Figure: Evaluation of Their Own Overall Abilities Change from the teachers, parents and students
(Teachers, N=471 ;Parents, N=1215 ; Students, N=317; totally 100 points)*

Moreover, after participating in NEI, parents pointed out that their children started to motivate themselves to study rather than waiting for parents to check up on them. Meanwhile, many families have shown improvements in their parent-child relationships, with children being more willing to express themselves and parents more willing to listen and encourage their children.

(4) Innovative: NEI's Education Theory and Technique Earns High Recognition.

Innovation in education should respond to the changes and needs of the times, but also be forward-looking and transcendent. The core values, the four changes, the five ideas, the ten actions, and the introduction of children's curriculum, teacher development, ideal classroom, monthly events, pantomimes, school culture and other projects of NEI are different forms of innovation rooted in the best parts of traditional education. Compared with traditional education, these parts of NEI have made innovations in educational ideas, modes, content and achievement areas.

Most teachers and the parents believe that NEI is more innovative than the traditional education in terms of educational theory, method, content and achievement. Only 3.4% of teachers and 4% of parents consider that NEI shows little difference from traditional education. Among these, NEI's innovation in education theory and methods was the most recognized by teachers (84.9%, 79.6%) and parents (69.7%, 74.7%).

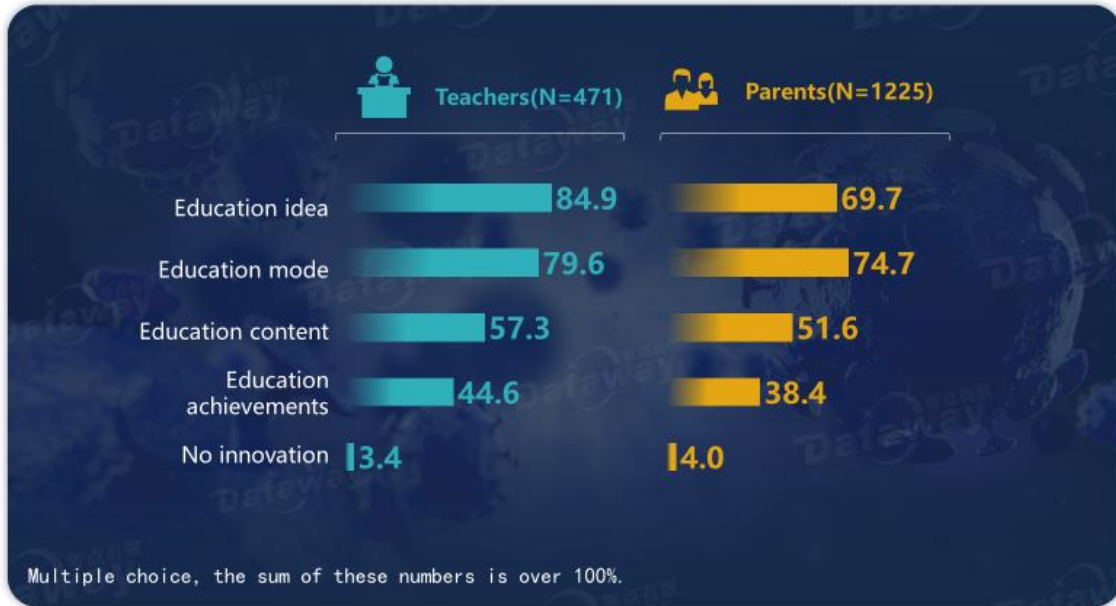


Figure: Compared with Traditional Education, the Innovation Part of the NEI (%)

From the students' perspective, there is seen to be a huge difference between NEI and traditional education in terms of achievement, the form of classes, and course content, while only 5.6% of the students feel there is no difference between NEI and traditional education in those areas.



Figure: The Difference of NEI and Traditional Education on Course (N=320, %)

(5) Forward-looking: NEI Helps to Enhance Teachers' Sense of Achievement and Professional Identification.

The research indicated that NEI had a positive effect on building teachers' professional identification. Teachers play an important role in the education innovation process, so it is important to continuously empower teachers so that continued development in education can be achieved.

With the continuous advancement of teachers' professional development, cultivating qualified and specialized teachers has become the goal for teachers' education. However, traditional education pays special attention to students' achievement, but not enough attention to teachers' self-development. The simple and

rigid teaching mode will not only make students tired of learning, but also make teachers tired of teaching, and can even cause burnout, and the loss of their original career satisfaction. NEI takes teachers' growth as the starting point, through ten actions including "building a school environment that promotes reading and innovative learning" to achieve the purpose of NEI's teachers and students to live a happy and complete educational life, which can also change the traditional teacher development method. It not only gives new pedagogical support, but also injects more energy into their psychological state. Moreover, it injects new vitality into teachers who are struggling with traditional education reform, which makes it welcomed by the teachers.

*Traditional education also mentioned the improvement of teachers' social status and welfare but failed with little achievement. Under the premise that external conditions have not been improved, NEI changes teachers through professional reading and writing, so that teachers can obtain inner pleasure and sense of achievement, and gain a spiritual self-confidence that others do not have.*⁴

—the head of an education bureau from Dingnan County, Jiangxi

The NEI not only focuses on teachers, but also on students and parents. The "Three professional acts" for teachers is an initiative and development of traditional

⁴ In this report, italics are the original words of the interviewees, which will not be repeated later.

education. I think it is vital to combine the professional development of teachers with teachers' wellbeing. In our traditional education, it also advocates the professional development of teachers, but it pays more attention to their professional ability and pays less attention to their life style and happiness. NEI, in this aspect, is more novel and has such an idea to cherish them. Teachers not only have professional growth, but also can feel happiness of their own growth, so they can gain more happiness than before.

—the head of a primary school from Rizhao, Shandong

The NEI establishes its own unique education mode, especially on moral education. It saves moral education from rigid education materials. NEI course shows more diversity in contents. Guiding teachers on how to educate better.

—a teacher from Changzhou, Jiangsu

(6) Breakthrough: NEI Helps Rural Areas Find a Way out of the Exam-oriented Dilemma.

The future development of education must be focused on the comprehensive development of students' body and mind, not just exam-oriented education. However, in underdeveloped areas, the emphasis and scope of education are not as high as in developed areas. People in underdeveloped areas still consider education to be

passing exams, and they lack education resources even when they want to make changes. From the very beginning, NEI has paid special attention to underdeveloped areas, including rural areas and some urban areas below the third and fourth tier. With NEI taking root in these areas in the past 20 years, more and more parents pay more attention to their children's education, and great changes have taken place in their education idea. The expectation for education is from simply acquiring exam-oriented education to paying more attention to the comprehensive growth of children and the cultivation of learning initiative. “I wish my child to be an optimistic person. He doesn’t need to be top at exams, but I hope my child can learn how to learn, have initiative to learn, and have good study habits.”

NEI focuses on rural education in China, cooperating with teachers, students and parents from rural areas to join in NEI to contribute to the breakthrough and innovation of rural education.

This school started out as a traditional rural school before it embraced NEI. Most parents and students hadn't heard about NEI, let alone understood the concept of NEI. They thought NEI's concept was too ambitious and unpractical. The only thing that matters was good scores. Parents cared little about the physical and mental development of their children. But after they participated in NEI thoroughly,

they started to accept it. The recognition of parents is getting higher and higher these years.

—an NEI elementary school principal from Shijiazhuang, Hebei

In our neighborhood, people prefer to seek pleasure rather than spiritual hobbies such as reading. But after participated in NEI, we found that teachers started to read and write, and even put their articles on social media. They started to encourage their students, and even students' parents to read books together. Teachers, students and parents have formed a reading community. Nowadays, every school in our neighborhood is immersed in reading.

—the head of an education bureau from Jiangxi

(7) School-family Cooperation: The Cooperation Shows Effective Results and continuous innovation of communication methods has been made

In recent years, family education, as an important part of education, has attracted attention across society. Teachers, parents and students speak highly about NEI's collaborative approach between schools and families (collaborative education system). Interviews also show that NEI puts the collaborative education system in an important position. Through the establishment of a collaborative education system committee, new parents' school and club, firefly workstations and other

initiatives, NEI actively built educational collaboration between schools and families, and maintained long-term cooperation with parents through a collaborative education system between schools and families reading materials, mutual visits, newsletter, WeChat group, QQ group and other new techniques, to jointly promote the growth of students.

Collaborative education system between schools and families is a highlight of NEI. However, with NEI's broad and profound promotion over the years, even if the teachers' theoretical and practical teaching skills have improved and optimized, the desire for further guidance has grown. Thus, for new schools in the experimental area, NEI can consider whether to deploy outstanding young teachers who have grown up through NEI to other NEI schools regularly to carry out public lecture for teaching guidance.

Our school has established a collaborative education system between schools and families. We required every parent to give a lecture to the class and encourage them to join in many other school activities. Parents can also invite other parents with various professional background to share their experiences and knowledge with the students.

—a teacher from Changzhou, Jiangsu

For example, COVID-19 has affected our life this year. We encourage our students and their parents to establish the course about NEI. We also invited dentists to share how to protect our teeth and we invited doctors and police officers to the class. Students love those courses very much, and parents are very supportive too.

—the head of an education bureau from Dingan, Jiangxi

In terms of the collaborative education system between schools and families, it is vital to make parents our allies. We always say “on the path of education, we shall go together.” We established a lot of platforms to enhance collaboration between schools and families. For example, we have set up a three-level parent committee to enable parents to participate in the activities of the collaborative education system between schools and families education, such as the emotional intelligence class, which we invite people with abundant experience in family education to speak so that the parents can be better informed. Moreover, we hope the NEI can assign young NEI model teachers to our school to further guide us.

—the principal of a primary school from Rizhao, Shandong

(8) Replicability: NEI is Highly Recommend and is Worth Promoting

NEI has increased students' interest in studying, enhanced their class performance, and improved study habits, which undoubtedly benefit its students for

a lifetime. The growth of children also allows their parents to see NEI’s significant impact.

This report analyzes the differences between the expectations of the respondents before participating in NEI and the feeling after their participation. 83.4% of teachers and 78.7% of parents consider that NEI’s effect exceeded their expectations, while less than 5.5% of them consider the effect did not meet their expectations. Overall, NEI has a positive effect on participants.

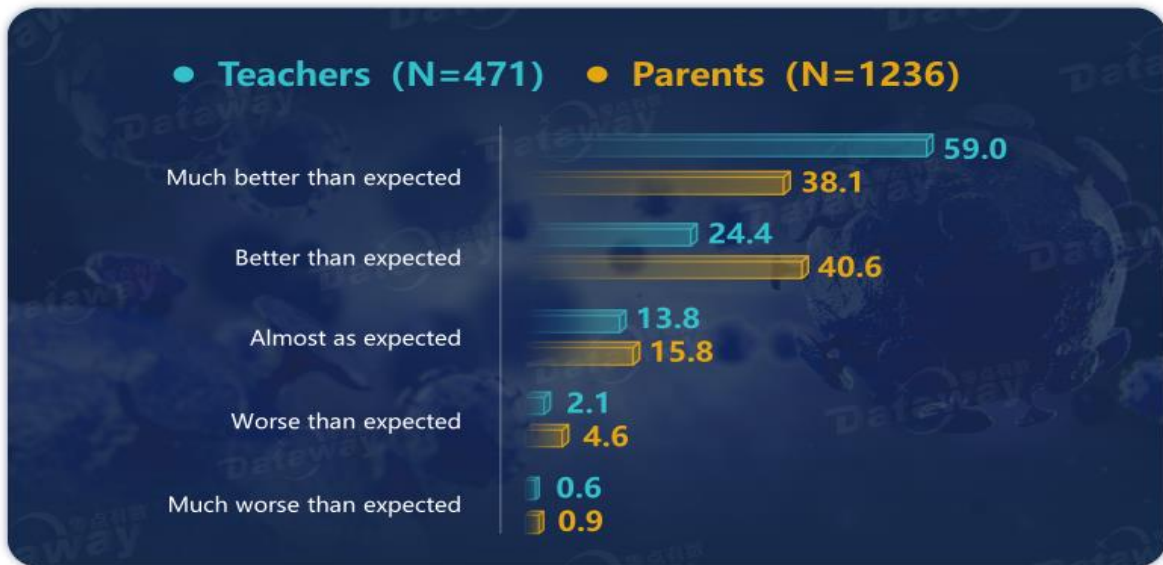


Figure: Expectations after Participating in the NEI (%)

Judging from the expectations for teachers in the NEI, the overall evaluation score of the teachers in the ten experimental areas is 84.92. Among them, the Xinyi experimental area of Jiangsu Province scored the highest (96.9 points), followed by the Xiaoshan experimental area of Zhejiang Province (90.9 points) and the Jiangyan

experimental area of Jiangsu Province (90.2 points); Haimen experimental area of Jiangsu Province and Yuzhong experimental area of Lanzhou city of Gansu Province scored relatively low (78.8 points and 75.7 points), which was lower than the overall score of more than 5 points.

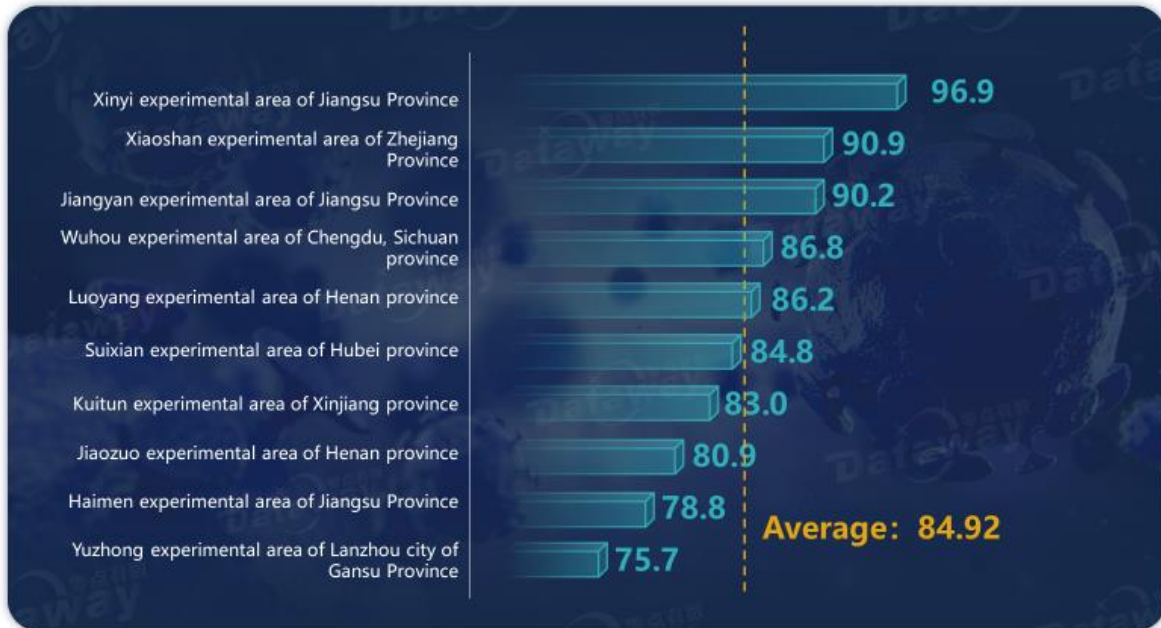


Figure: Teachers' Evaluation of the NEI after Participation (N=471; total=100 points)

The research used Net Promotor Score (Net Promotor Score = recommendation % - detractor %, NPS) to evaluate the recommendation of NEI. NPS uses a 0-10 point rating scale to investigate a respondent's willingness to recommend to others after participating in NEI. Respondents who choose 0-6 points are detractors, and those who choose 7-8 points are passive spreader. Respondents who choose 9-10 points indicate that they have a better experience while participating in NEI and are willing to promote NEI, and are recommenders.

In general, the overall recommendation of NEI performed well (percentage of recommender – percentage of detractors). The NPS of the teachers is 43.74%, and the NPS of the parents is 35.43%, which indicated that the teachers and the parents who participated in NEI formed a strong sense of identification and are the foundation of NEI’s replicating and sustainable development.

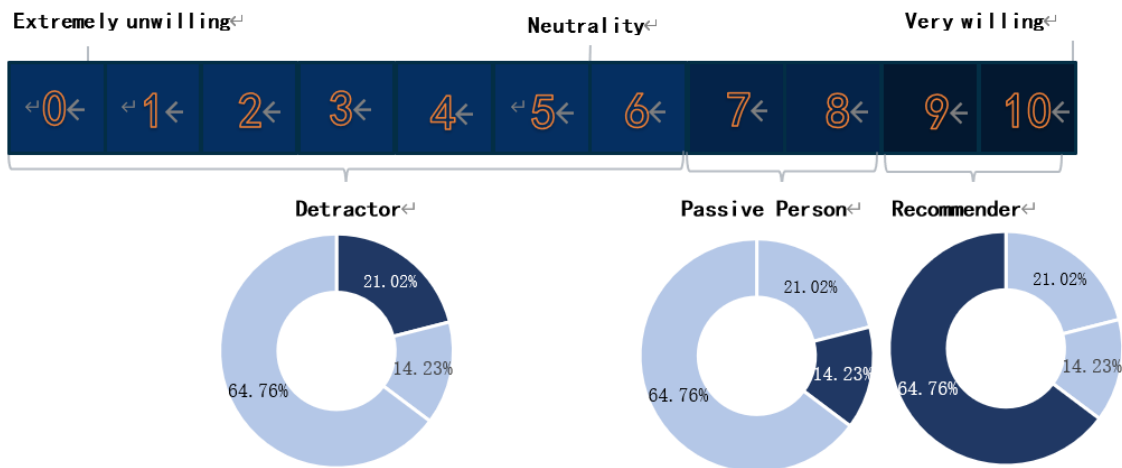


Figure: Teacher's Recommendation of the NEI (%)

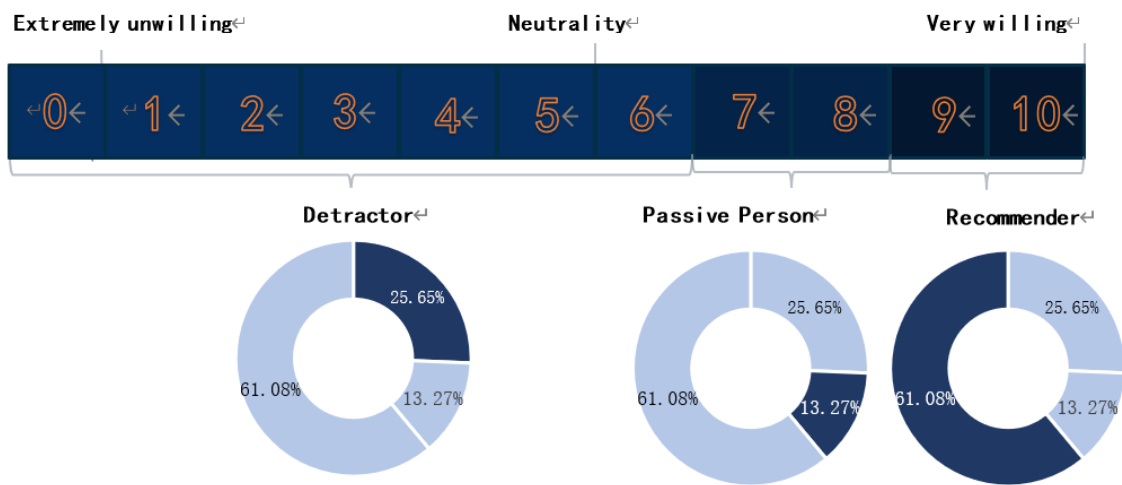


Figure: Parent's Recommendation of the NEI (%)

Judging from the suitability of NEI's promotion, 89.1% of teachers and 85.5% of parents indicate NEI can be replicated easily to different regions and schools, while less than 3% of teachers and parents indicate NEI is not suitable for replicating. The research indicated that NEI is worth replication.



Figure: Teachers and Parents' Evaluation of the NEI's Promotion and Demonstration (%)

(9) Sustainability: New Content, New Technologies, New Teachers, and New Resources are Needed in Future

Twenty years is undoubtedly an important development point for NEI. As an educational reform that mainly spread through social organizations, NEI has experienced and achieved a lot, which leads to the need of doing more in the future.

The survey shows that the opinions of the interviewed teachers focused on the improvement and cultivation of teaching ability, which leads to the need of integrating and utilizing their own resources to develop more high-quality courses and better provide a good example to peers. As for the parents and students, they focus more on the "Ten Actions" and the optimization of NEI courses, which concentrate on the improvement of reading ability, collaboration between schools and families, practice ability, overall quality and vision expansion.

Combined with feedback from respondents, the four “new” aspects should continue to be promoted in future.

New contents: given the continuous changes in the internal conditions and external environment of the traditional education system, NEI must also constantly evolve. Content construction is the core of NEI, which means that its main conceptual innovation should be new ideas, new curricula, new course materials and new activities with a forward-looking outlook.

New technologies: With the rapid development of science and technology, rapid development has also occurred in educational technology. Thus, NEI should also keep up with new technologies, increase efficiency and effectiveness, especially in the context of communication and interaction between more than 150 experimental areas and 5000 schools.

New teachers: Several interviewees mentioned that in future, more attention should be paid to increasing the interest of young teachers to encourage more participation in NEI. Young teachers can bring more new ideas and practices and are more able to determine the future of education.

New resources: In addition to the education materials NEI shared with its experimental areas, NEI can also make the learning methods and communication network between different NEI experimental areas and schools more efficient, especially for promoting excellent NEI teachers, courses and experiences. These are a new resource that can be a reference for other experimental areas.

I think its concept is to constantly improve, which is worth our recognition and appreciation. If it needs to be improved, I think it should be systematic integration of the resources. For teachers or principals who newly join NEI, seeing such a huge system may cause confusion. In fact, at this time, we can refer to the achievements we have made. In addition, for example, the construction of the ideal classroom can be more closely integrated with NEI reform.

--expert of Family Education Committee, The Chinese Society of Education

NEI team has lots of connections with the school and provides professional support. Nowadays, making more young teachers more willing to participate in NEI is important.

--the head of a primary school from Shijiazhuang, Hebei

After so many years of development, NEI has also accumulated many resources, including excellent teachers. We can encourage these teachers to help design excellent courses (including course design) like reading courses. It is hoped that the latest technology can be applied on NEI resource platform building, which can help the teachers, students and parents can continue to use this platform to learn independently.

In the future, keeping NEI's development at pace progress at the technical and operational levels is also to be considered. For example, during the pandemic this year, most courses were transferred to online teaching. To some extent, the pandemic accelerated educational reform, promoted the rapid realization of new changes in learning methods and teaching methods. It also promoted NEI's reform on its education form as well as its resources' access. NEI should consider the way to keep up with the time on the basis of its accumulated resources with the current pandemic situation.

--the head of an experimental primary school from Shandong

4. Main Suggestions

Drawing on the completed questionnaires, the opinions and suggestions of various interviewees are summarized and analyzed as follows:

(1) Strengthen the faculty force, build the communication platform

Teachers are the main implementers of NEI. Strong faculty engagement promotes NEI's rapidly and steady implementation. In the meantime, NEI also places new demands on teachers. New teacher training plans and adjustment, NEI excellent teachers' propaganda and training implementation are also very important.



Figure: Teachers' opinions on faculty strength (N=78, %)

According to teachers' opinions, 46.15% and 30.77% want an optimized training content and improved professionalism, as well as more training opportunities and activities such as open weeks and teaching seminars. In addition, some of the interviewed teachers reported a need for communication platform building on the basis of integrating high-quality teaching resources. The platform adopts the combination of online and offline activities to promote the sharing and co-construction of high-quality resources to achieve individualized teaching.

a. Focus on optimizing NEI training model

In this survey, teachers put forward lots of suggestions for NEI's training model. In terms of training content, adjusting the proportion of NEI concept propaganda and NEI practical courses was recommended, while developing and expanding the range of training courses, continued optimization and innovation of methods, and improving the overall quality of teachers. With regard to training, they hope to carry out more offline experience exchanges and teaching seminars, and gradually systematize and standardize the training courses, so as to form a set of systematic and operable training systems.

b. Quality resources are shared and jointly built

The NEI network has accumulated a large number of high-quality teaching resources. The sharing and co-construction of high-quality resources has become the common expectation of NEI's teachers. In terms of teacher resources, the rotation of

high-quality teachers within the NEI network, encouraging teamwork, developing teaching resources and sharing these among colleagues are important. In addition, NEI can increase the number of excellent teachers, ways of communication and teaching models to achieve rapid development of NEI's teachers. In terms of platform resources, communication platforms should be set up to gather high-quality teaching resources from various schools to share and promote them to facilitate their exchange between different experimental areas and schools.

(2) Integrate traditional education and optimize NEI courses

In terms of optimizing NEI courses, parents' and teachers' desire to improve students' practical ability and develop high-quality courses accounted for 31.5% and 28.2%, respectively. Teachers' opinions on the need to strengthen students' cultural education and improving students' practical ability are relatively high, which account for 40% and 20%.

Teachers and parents both expect to have more activities in course content to improve students' practical ability, educational level and psychological accomplishment. Teachers pay more attention to the integration of cultural and traditional education, new course development and quality improvement. The parents, on the other hand, place more emphasis on increasing courses to improve students' practical ability.

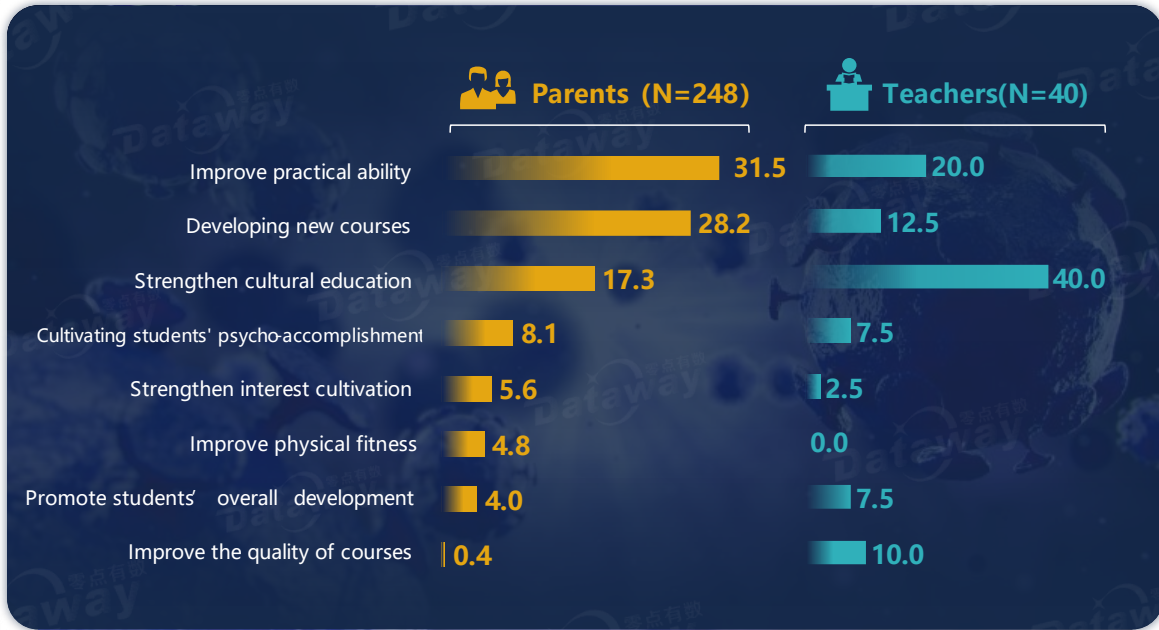


Figure: Teachers and parents' opinions on teaching curriculum (%)

a. New course development and innovation

In this survey, parents put forward more demands for the improvement of students' overall abilities and hoped to develop more courses to broaden students' horizons. For example, scientific courses can bring knowledge from natural science, social science and regulation areas; current social events' seminars; psychology and counseling courses can bring psychological knowledge and help students with problems and improve emotional intelligence; the team practical course focuses on improving practical and interpersonal skills, while improving students' self-discipline and responsibility in the team and their overall quality.

b. Integrate NEI with traditional education

At present, the implementation of NEI is in the perfect period. At this stage, it is necessary to integrate NEI with traditional education with regard to student training, course content and other areas. In this survey, the interviewees suggested more systematic and standardized requirements for NEI's training methods. First, they hope to combine NEI with traditional teaching content without increasing the total amount of studying and to adjust the proportion of traditional education and NEI courses during learning. Second, to coordinate and unify NEI courses and traditional education content, which can be carried out by adjusting NEI courses' methods and content to better match exam content. Another way would be to adjust NEI's assessment standards and methods, which can help to relate the added part of NEI's content (compared to traditional education) into the assessment category, and then adjust the proportion of the examination content to a reasonable range.

(3) Smooth communication channels and promoting home-school cooperation

In this survey, most of the parents offer their opinions on NEI's teaching methods, which are mainly about the collaborative education system between schools and families, which includes hosting more activities, strengthening collaboration between schools and families and organizing parents to participate in

NEI's parent training course to enhance parents' understanding of school work and the concept of family education.

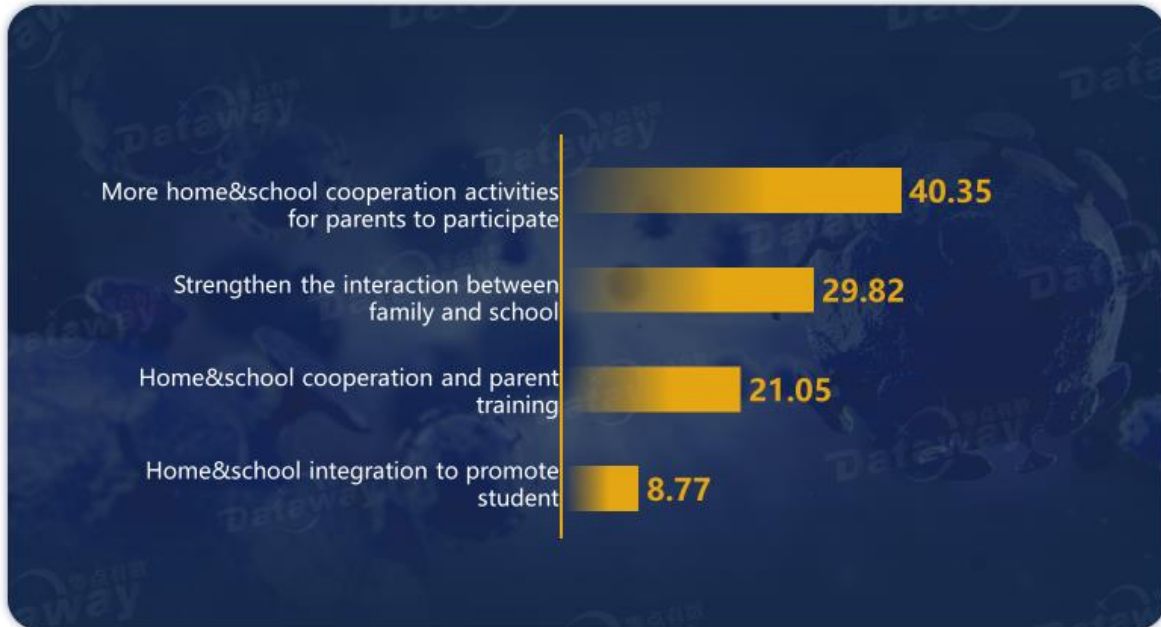


Figure: Parents' opinions on teaching methods (N=57, %)

a. Unimpeded communication channels

A good home-school partnership is based on sincere communication, sufficient and symmetrical information sharing as well as constant contact. Most interviewees mentioned that besides advocating reading at home and school and carrying out more cultural activities, adding some recreational physical activity to combine education and entertainment can also stimulate children's interest in learning. In addition, some parents mentioned that the increase of interaction between family and school can

maximize the integration of children in joining activities so that every child can experience the joy of education.

b. Continue to promote the collaborative education system between schools and families

Under the influence of the pandemic normalization, online learning has become the main approach for children to gain knowledge. The classroom has moved from offline to online, which creates new challenges for schools, students and parents and shows the transformative impact of internet technology on the education industry. The transformation also offers opportunities for the collaborative education system between schools and families, in which NEI can set up a school-family communication platform that offers "Online + offline" approach to explore the zero distance communication mode between family and school to create a family and school joint community.

(4) Actively mobilize NEI's propaganda and enlarge NEI's experimental scope

The opinions of the teachers and the parents on NEI's promotion mainly focused on four aspects: promotion methods, groups, scope and intensity. The teachers mainly suggested improving promotion methods and expanding promotion groups. They hope that NEI's promotion can be based on local conditions and let a

larger range of teachers and parents participate in it. The parents mainly suggest that more effort should be made to promote NEI so more parents can know its effects and accelerate NEI's implementation so that more students can benefit from it.

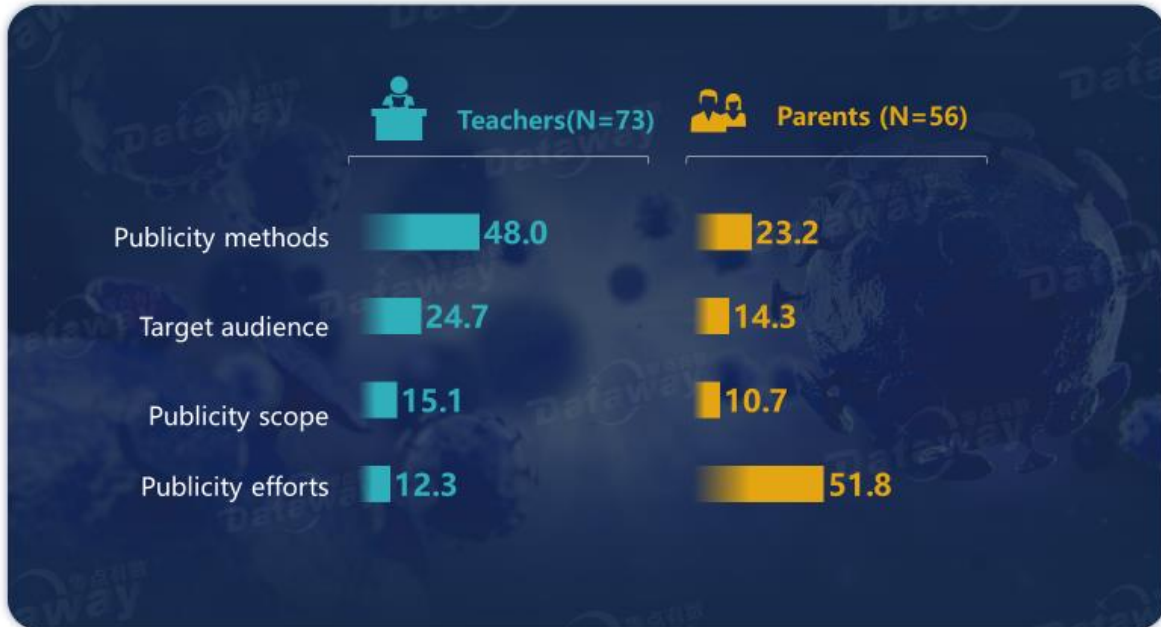


Figure: Teachers and parents' opinions on publicity (%)

a. Actively publicize NEI's concepts, mobilize and enhance the participation of teachers, parents and students

48% of teachers and 23.2% of parents put forward a higher requirement for the promotion of NEI. For teachers, it was suggested to adjust teachers' administrative burden or to reward outstanding individuals to arouse enthusiasm and guide more teachers to participate in NEI. In terms of parents, it was suggested to publicize the activities and courses of the collaborative education system between schools and families extensively, pay attention to the publicity of the concept and results of NEI,

and to carry out training and propaganda to allow parents to attract peers with similar education values. As for students, it was suggested that enhancing openness in course design would better mobilize students' interest and enjoyment, give more autonomy and space to stimulate and promote innovative thinking and independence while also improving participation.

b. Enhance efforts for NEI's promoting and increase NEI experimental schools

In this survey, more than 50% of the parents hoped to increase NEI's promotion and believed NEI's promotion can be made with local administrative education departments' support, and that the NEI implementation funds should be increased accordingly. In order to expand the range of NEI's experimental areas, schools in suburban and rural areas should also be included in NEI's experimental areas while grass-roots and small-scale schools as should be selected experimental schools to make sure NEI's effect to different schools.

Appendix Technical Report

(1) Evaluation Approach

a. Literature Review

The New Educational Initiative (NEI) has its own unique educational system with mature ideas and practical methods. This research collects and evaluates the reports, comments, and other material related to NEI so that NEI's development context, innovation characteristics and practical effects can be sorted out and summarized.

b. In-depth Interview

a) Method introduction

An in-depth interview is conducted with unstructured, direct and one-to-one approach, which is conducted by experienced researchers to get interviewees' opinion about certain questions. It normally takes 45 to 60 minutes. The advantage of in-depth interviews is researchers can obtain more detailed information on relevant issues and can offer different questions to different interviewees.

b) Sample design

This evaluation focuses on NEI stakeholders and is based on in-depth interviews. The interviewees are mainly from the core and participation circles, and a few from the peer circle. Eight respondents from Jiangsu, Shandong, Fujian, Hebei,

Liaoning, and other provinces have been quoted as representative, including an expert of education industry, the head of a district/county Education Bureau, principals, teachers and parents.

Table: Interviewee Distribution

| | Interviewees | Provinces | Area | Sample Size |
|----------------------|--|-----------|--|-------------|
| Core Circle | The head of the district/county's Education Bureau | Jiangxi | Dingnan Experimental Area of Ganzhou, Jiangxi Province | 1 |
| | Principals | Shangdong | The Main Urban Area of Rizhao, Shandong Province | 1 |
| | | Hebei | Qiaoxi Experimental Area of Shijiazhuang, Hebei Province | 1 |
| Participation Circle | Teachers | Liaoning | Shenyang Experimental Area of Liaoning Province | 1 |
| | | Jiangsu | Wujin Experimental Area of Changzhou, Jiangsu Province | 1 |
| | Parents | Fujian | Tongan Experimental Area of Xiamen, Fujian Province | 1 |
| | | Shanxin | Jiangxian Experimental Area of Shanxi Province | 1 |
| Peer Circle | Education expert | Beijing | Haidian Experimental Area of Beijing | 1 |
| Total | | | | 8 |

c. Quantitative Survey

a) Method introduction

The quantitative survey was conducted through an online survey application, “Dadui”, to enable more teachers, students, and parents to participate. “Dadui” is a mobile interactive tool developed and owned by Dataway Horizon. QR Code surveys, with their higher participation, more abundant samples, timeliness, convenience, and lower cost, have been gradually become a more prominent among professional survey companies to identify and collect information. "Dadui" is a mobile interactive survey platform, with QR Code survey capability, which can capture real-time questionnaire information and ultimately form a data report automatically.

“Dadui” platform has an innovative questionnaire collection, multi-demand satisfaction, and professional research endorsement functions.



- Can respond quickly to lightweight public research and interaction needs.
- Can identify user information to form a database
- Can collect data in a fun way to mobilize the enthusiasm of respondents and enhance the willingness to participate.
- Can form social communication by forming interactive test results after answering questions.



- Can connect with existing customers of enterprises through the channels available to them.
- Can customize the design and development of the questionnaire page.
- Can gather data in a more realistic and targeted way by using LBS technology.
- Can support Wechat, offline Qr code and other multi-channel dissemination.



- Can quickly view the results of the survey without the following steps such as data cleaning, data analysis, interpretation, display, etc.
- Can provide professional questionnaire design, in-depth data analysis, and follow-up consulting services for customer data by depending on the research background and the complete industry line of Dataway Horizon.

The key features of “Dadui” are:

- Can respond quickly to lightweight public research and interaction needs
- Can connect with existing customers of enterprises through the channels available to them
- Can identify user information to form a database
- Can collect data in a fun way to mobilize the enthusiasm of respondents and enhance the willingness to participate
- Can form social communication by forming interactive test results after answering questions
- Can customize the design and development of the questionnaire page
- Can gather data in a more realistic and targeted way by using LBS technology
- Can support Wechat, offline QR code and other multi-channel dissemination
- Can quickly view the results of the survey without the following steps such as data cleaning, data analysis, interpretation, display, etc
- Can provide professional questionnaire design, in-depth data analysis, and follow-up consulting services for customer data by depending on the research background and the complete industry line of Dataway Horizon

b) Sample design

This quantitative questionnaire survey adopts stratified random sampling, which has the advantages of good representation and small sampling error.

The quantitative questionnaire of this evaluation is conducted by online survey so that more teachers, students and parents who have been in contact with NEI can quickly join in the survey.

The samples spread in ten NEI practice areas such as the eastern provinces Jiangsu and Zhejiang, the central provinces of Henan and Hubei, and western provinces including Gansu and Sichuan and Xinjiang Uygur Autonomous Region. A total of 2027 valid samples were collected in the survey.

Table: Quantitative Sample Distribution

| Category | Sample Type | Sample Size |
|----------------------|---|-------------|
| Participation Circle | Teachers (Staff of competent departments and administrative of school and personnel of educational research institutions) | 471 |
| | Students | 320 |
| | Parents | 1236 |
| Total | | 2027 |

Table: Experimental Area Distribution

| Experimental Area | Sample Size |
|---|-------------|
| Haimen Experimental Area of Jiangsu Province | 188 |
| Jiangyan Experimental Area of Jiangsu Province | 104 |
| Xinyi Experimental Area of Jiangsu Province | 70 |
| Xiaoshan Experimental Area of Zhejiang Province | 70 |
| The Main Urban Area of Jiaozuo, Henan province | 111 |
| Luoyang Experimental Area of Henan province | 76 |
| Suixian Experimental Area of Hubei province | 64 |
| Kuitun Experimental Area of Xinjiang province | 971 |
| Yuzhong Experimental Area of Lanzhou city of Gansu Province | 270 |
| Wuhou Experimental Area of Chengdu, Sichuan province | 103 |
| Total | 2027 |

c) Background information of the samples

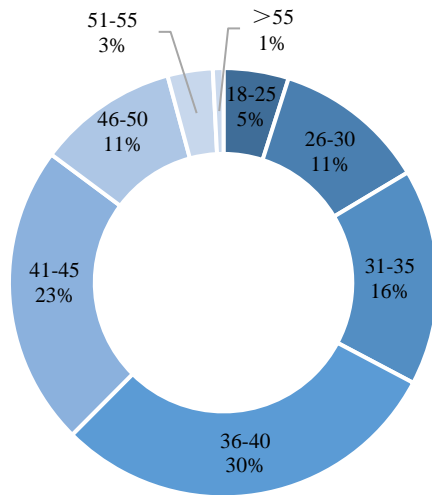


Figure: Teachers' age range (N=471)

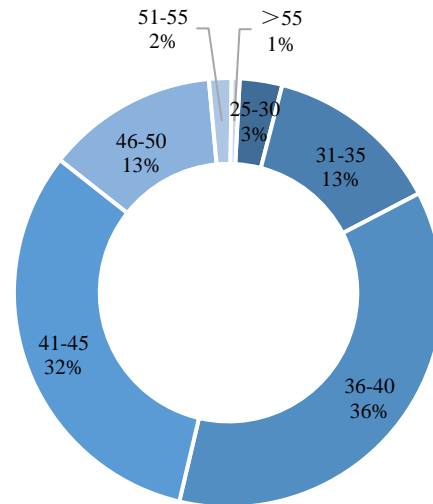


Figure: Parents' age range (N=1236)

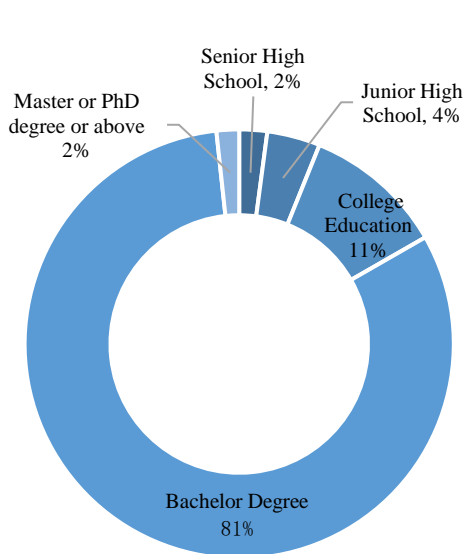


Figure: Teachers' degree status (N=471)

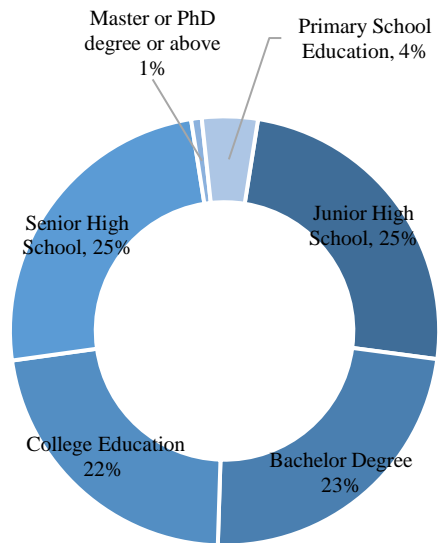


Figure: Parents' degree status (N=1236)

Table : The time of join NEI (Teachers, N=471)

| Development | Year | Sample Size | Proportion (%) |
|--|------|-------------|----------------|
| Newly establishing period (1999-2002) | 2000 | 25 | 5.3% |
| | 2001 | 4 | 0.8% |
| | 2002 | 7 | 1.5% |
| Growing period (2002-2013) | 2003 | 10 | 2.1% |
| | 2004 | 5 | 1.1% |
| | 2005 | 11 | 2.3% |
| | 2006 | 28 | 5.9% |
| | 2007 | 8 | 1.7% |
| | 2008 | 21 | 4.5% |
| | 2009 | 21 | 4.5% |
| | 2010 | 20 | 4.2% |
| | 2011 | 9 | 1.9% |
| | 2012 | 17 | 3.6% |
| | 2013 | 19 | 4.0% |
| Mature period (Since 2013) | 2014 | 28 | 5.9% |
| | 2015 | 49 | 10.4% |
| | 2016 | 33 | 7.0% |
| | 2017 | 40 | 8.5% |
| | 2018 | 44 | 9.3% |
| | 2019 | 51 | 10.8% |
| | 2020 | 21 | 4.5% |

(2) Methodology

a. Analysis methods

The main analytical methods of this research are the missing value analysis, frequency analysis, and cross-analysis.

Missing Value Analysis: This method is used during the data collation phase. In the actual survey, some interviewees cannot explain clearly or refuse to answer individual questions, which generates missing data. For handling those missing information, the missing values are not counted in the statistics of the questions, which can help the calculation process to be unaffected by the missing value.

Frequency Analysis: In this project, frequency analysis is used for all indicators. Frequency analysis is the most widely used analysis technique in all quantitative surveys and reflects the proportion of respondents for certain answers. Basic statistical analysis often starts from the frequency analysis which is useful to understand the value of variables and the distribution characteristics of data.

Cross-Analysis (Cross-Contingency Table): Here, this analysis method is used for scoring different groups' indicators. Cross-analysis is a statistical analysis method that describes the joint distribution of two or more variables as well as their results simultaneously. This table reflects the joint distribution of discrete variables with limited classification or values.

b. Results

In the questionnaire, each question is evaluated by a five point scale, and all scores are converted to the hundred-mark system in the final score display to facilitate understanding and comparison. The conversion formula of the five-mark system to the hundred-mark system is as follows:

$$\frac{x - X_{\min}}{X_{\max} - X_{\min}} = \frac{y - Y_{\min}}{Y_{\max} - Y_{\min}}$$

Where x is the five-mark system's score of an indicator

X_{\max} is the highest score of the five-mark system (5)

X_{\min} is the lowest score of the five-mark system (1)

y is the hundred-mark system's score of an indicator

Y_{\max} is the highest score of the hundred-mark system (100)

Y_{\min} is the lowest score of the hundred-mark system (1)

| Five-mark system | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 |
|---------------------|----------|-------|--------------|-------|--------------|-------|--------------|-------|------------|
| Hundred-mark system | 1 | 13.38 | 25.75 | 38.13 | 50.50 | 62.88 | 75.25 | 87.63 | 100 |