Try Group's ICT Education Strategy amid Education Reforms and the COVID-19 Pandemic

— Cases from "Try IT", "AI Tablet Service" and "Online Group LIVE Summer Courses"—



1. Introduction

Living in the Reiwa Era, we have faced considerable change in our environment. These changes have also brought major changes in what is required in the field of education. As a business in the field of education, adapting to these changes is an urgent matter.

This article reviews changes in education due to educational reforms and the COVID-19 pandemic, and discusses the Try Group ICT education strategy, under the "People × Digital" banner. We also discuss three examples of our achievements based on this strategy.

2. Education and tutoring industries: Past, present and future

In the past, "group teaching" and "off-line (one-on-one) teaching" has been the mainstream. In group teaching, classes were conducted uniformly, according to a curriculum, and it was effective in helping many students acquire knowledge, but had issues in areas such as nurturing students' thinking skills and addressing students' individual weaknesses.

It was also conducted mainly in an off-line (one-on-one) format, gathering students at a school, tutoring center or prepschool, and having tutors teach them directly. As such, educational materials and learning environments were organized with the assumption that students and tutors would interact directly.

Having developed in this way, education in Japan has had to make great changes due to education reforms in 2020 and the spread of the COVID-19 pandemic.

Major reforms in education are being made, starting in FY2020, including the content of elementary, middle and high school, and also the system for university entrance exams. An important aspect of these reforms is a shift from a "knowledge memorization" and "information processing capability" approach, in which students need to understand what to learn, to a "judgment," "logical thinking" and "expression skills" approach, so that students know how to use what they have learned. We believe it will be difficult to handle such changes using conventional group teaching with uniform classes following a curriculum.

The rapid spread of COVID-19 in Japan and the rest of the world starting in 2020 prompted the three-Cs (avoiding Closed spaces, Crowded places, and Close contact) to reduce risk of infection. This made it difficult to continue off-line (one-on-one) education with people gathering in one place, and resulted in rapid introduction and development of online education in regions throughout the country.

With education reforms redefining scholastic ability, and

COVID-19 changing education environments, the very nature of education is coming into question. The first thing that is needed is to transition from uniform education to education tailored to individuals. Demand for individualized teaching, which is adaptable for the learning-shift from focusing on memorization to being able to use knowledge, is increasing.

The next requirement is to promote online education. This goes beyond acquiring devices, to organizing content, training tutors and other issues, too many to count. With a redefinition of what education should be, education businesses are also required to change the services that they provide.



Figure 1: Education in the past and future

3. Try Group's ICT education strategy

Considering how to face this period of upheaval in the education industry, Try Group has been building a new form of education using the power of "People × Digital."

Since Try Group was established, we have emphasized one-on-one instruction, providing education that is closely personalized for each student. Using the "Try Learning" methodologies, such as our dialogue learning method in which students output what they have learned in their own words, we have had success nurturing students' logical thinking capabilities and expressive abilities. A central concept of our company is "People teaches people; people nurtures people." We are using this concept as much as possible in pursuit of better forms of education.

On the other hand, as the demand for online education has increased with the COVID-19 pandemic, it has been essential to introduce digital teaching materials and ICT education, in addition to our one-on-one instruction. Attention on "flipped learning," in which digital materials are used for preparation before a lesson, has increased so the role of the lesson itself is also changing significantly. We expect even more demand for services making full use of devices and networks in the future.

As such, Try Group has proposed an ideal image of education represented by the tag line, "People × Digital" (integrating off-line

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and online methods), to accelerate our ICT education strategy in the future. We are enhancing digital aspects by introducing and expanding video courses, AI and online services, in line with the high-quality, one-on-one, individualized education that we have already developed, to maximize their educational potential.





4. Try Group's initiatives

To realize "People × Digital," Try Group has incrementally developed services utilizing online resources. This section will describe our "Try IT" video-course service, our "AI Tablet" service, and our "Online Group LIVE Summer Courses."

< "Try IT" Video Courses >

"Try IT" was released in July, 2015, and is a service providing high-quality video courses on the internet, with top-ranked professional private tutors delivering the lessons on major subjects for middle and high-school students. In September, 2021, it was expanded to utilize multiple other media such as original apps, websites, and YouTube. Try IT course video viewing is provided "free forever." As such, the service provides opportunities to learn at any time and any place, to anyone. Students can study by Try's carefully selected professional private tutors with short, focused, 10-to-15-minute units, and approximately 6,000 of these videos covering middle and high-school topics are offered free-of-charge.

This service is also being used in a wider range of scenarios in recent years, including supports for periodic exams, highschool and university entrance exams preparation, and courses to overcome students' weaknesses. It is also being used in learning support projects in collaboration with regional governments, and in learning environments at middle and high schools.

Try IT users can be divided broadly into two groups: those who use our own app or the browser version, and those who watch lessons on YouTube. Users that register to use the original app or browser version are able to learn using specialized video lessons and learning materials.

The video lessons published on YouTube can be viewed on the public "Try IT Video Course" YouTube channel without registering. As of May, 2022, this channel had over one million users and roughly 300 million views.

We are also building our own in-house studio and continuing to update video courses, to revise learning outlines and adapt to changes in digital-viewing environments.

< Try AI Tablet Service >

The "Try AI Tablet" service was expanded nationally in April 2020, to further develop the "Try IT" video course service.

The AI Tablet service extends Try IT video courses, providing a learning methodology that assesses the student's understanding

Figure 3: Studying with video lessons in the "Try IT" browser version



of units in the learning material that they may be weak in, providing a direct learning flow leading to the required level of understanding. At Try, we have developed an original app combining video courses and the AI, providing a system that manages students' learning history digitally. We made it a digital learning package on a tablet device. There are three versions of the original app, for middle-school term tests, high-school periodic exam, and university entrance exam prep courses, and they are designed to be used depending on the student's school year and study goals.

Figure 4: Studying with the AI tablet service



The Try AI tablet service includes two types of AI. One is Try's learning diagnostic AI, and the other is an AI to predict entrance exam questions. Both of these AIs were developed in collaboration with Ghelia Inc., with investment from Sony Computer Science Laboratories. They use the latest technologies to support individually optimized, efficient learning.

The diagnostic AI is specialized to estimate the level of understanding for a course or unit from the student's answers to a limited number of questions in one of three levels (\bigstar to $\bigstar \bigstar$).

The issue solved by the diagnostic AI is to "improve the efficiency and accuracy of identifying the student's level of understanding." In regular tutoring schools, paper tests are used to assess students' understanding when they enter the school. This requires students to answer 200 or more questions over a period of two hours or more, and presents difficulties such as ensuring students' time and motivation, while not actually producing accurate estimations of level of understanding. Using the diagnostic AI has enabled us to greatly reduce the amount of time and number of questions. It has also enabled estimation of level of understanding with approximately one tenth of the labor time required for paper tests.

The diagnostic AI was developed using large amounts of learning data and the latest AI technology to quickly and accurately assess learning. Using the new method, we are able to provide diagnostic results that are 80 to 90% consistent with the results from answering all questions, and taking only one-tenth the time. In 2019, this system received the "Education AI Award" in the "Nikkei x TECH EXPO AWARDS 2019."

Try Group's AI tablet service presents learning methods applying the level of understanding determined using the diagnostic AI. For example, if the student had a level of understanding of \bigstar for a unit, their understanding of basic content is inadequate, so the service provides study from "Try IT" video lessons. For units scoring $\bigstar \bigstar$, basic knowledge has been acquired, but not yet mastered adequately, it starts with a summary of key points is presented. If the score is $\bigstar \bigstar \bigstar$, the content has been mastered and the service presents further study with practice problems.

The AI Exam Predictor is specialized to university entrance exams and selects 50 questions optimized based on trends in past exams, the student's strengths and weaknesses, and the target university. When the student's target university, department, and current academic ability are entered into the app on the tablet, the AI automatically generates 50 questions for the student to answer, optimized for their success. The service was started in August, 2020, covering 32 universities, and as of September 2021, it covered 824 departments in 129 universities. For university entrance exams held in FY2020 at all 32 universities^{*}, the questions appearing in the exams were similar to those anticipated by the AI Exam Predictor.

When developing the AI Exam Predictor, we teamed up with Ghelia Inc. and Obunsha Co. Ltd., who provided the questions data used in the app. More than 60 textbooks of practice questions are included in the app.

Try has established courses to support students until they successfully enter their target universities, combing questions selected by the AI Exam Predictor with coaching service. Through use of the AI Exam Predictor, we had students that passed "against-the-odds" in FY2020 and FY2021 entrance exams. We were able to support passing results in national universities including Tohoku University, Hokkaido University, Nagoya University, Shinshu University, the Kobe University School of Medicine, and others. We achieved the same in private universities including Waseda University, Keio University, Sophia University, Tokyo University of Science and Ritsumeikan University.

< Online Group LIVE Summer Courses>

In addition to Try IT and expanding ICT education (digital) using AI, the Try Group has been developing and expanding online services in response to rapid changes in education since 2020.

In this section, we introduce our "Online Group LIVE Summer Courses," which our entire company has been working

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^{*} For universities that make their exams public

on since FY2021. For these courses, we are providing real-time distribution with recorded archives for a total of 350 lessons, covering the main units from the fourth year of elementary school to the third year of high school, all free-of-charge.

We developed this service due to the increasing demand for online education during COVID-19 pandemic, as well as the increase in households facing economic hardship, and conditions in society such as the declaration of a state of emergency and the call to limit outings. This summer, approximately 36,000 people took the free courses. Participants evaluated the program highly, and we have continued to update and provide the courses, including winter courses in December 2021 and spring courses in March 2022. In the summer course of 2022, we added VR content.

Try Group has also been expanding the breadth of services with "Online Private Tutor" which provides online one-onone private lessons, and "Online Group Live Courses" which allows students from everywhere to take the lessons, regardless of geographical distances. We have also released services including "Online Coaching" and "Online Self-Study Spaces," as services to accommodate changing life styles and learning styles. "Online Coaching" was created in response to increasing amounts of content and time for home study, and feedback that it is difficult to manage study progress and maintain motivation. Students create study plans with the coach for days when they are not receiving one-on-one lessons, developing study habits while creating progress reports and having discussions. "Online Self-Study Spaces" focus on a trend in middle-school and high-school students, to gather with study partners on SNS. It provides spaces for friends to study together online and free-of-charge. We are also actively holding online seminars on various themes such as "The Changing Trends in Entrance Exam System," and "How To Spend the Summer Holidays," to provide information to students and their guardians.

5. Future prospects

The 2021 educational reforms and the COVID-19 pandemic have called into question the very nature of education and have required drastic changes for students, teachers, and the entire education industry.

Try Group is pursuing an ideal image of education represented by the tag line "People × Digital", integrating off-line and on-line aspects. Based on our company concept of "People teaches people; People nurtures people," we value one-on-one education with close attention to the needs of individuals, while using the latest AI technologies to integrate "people" with "digital" and provide new education services not seen before.

