



# GDLS (Gakken Digital Learning System) One-Stop Adaptive Learning Solution

## Challenge

In recent years in Japan, there has been a declining birthrate. Simultaneously, the advancement of EdTech and the impact of the COVID-19 pandemic have led to a diversification of needs for learning services. Meeting the ever-changing and diverse demands for educational services poses a challenge. Moreover, addressing the shortage of instructors, particularly acute in rural areas, is a pressing concern.

Within the Gakken Group, there is limited collaboration among subsidiary companies, and customer data across educational services is not centrally managed. Additionally, learning content is dispersed within the group. Establishing a common foundation is essential to effectively utilize the customer data and learning content.

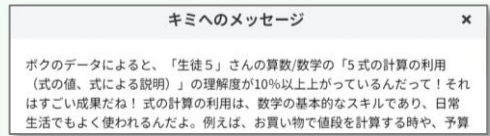


## Solution

- We offer an environment for instructors to easily customize learning curricula, AI settings, problem selection, and more, while continuously enhancing educational content through learner data analysis.
- GDLS offers a full range of learning services, including video lessons, AI-generated questions, and progress tracking, all aimed at easing instructors' workloads.
- We collaborate with educational metaverse space services. In addition, we offer individualized learning advice based on student learning history and comprehension using generative AI.
- To ensure flexibility in catering to different customer segments and learning modalities, we incorporated the design philosophy of microservices and reconstructed GDLS's system architecture. Additionally, we are progressing with the centralization of learning content data within the Gakken Group and establishing mechanisms for mutual utilization among multiple educational services.

## Learning impact outcomes

- Thanks to GDLS's adaptive learning, student comprehension has increased by +41.1%, and the number of learning sessions has grown by +32.3%
- Leveraging GDLS's ease of customization, one of our major clients has integrated their unique learning content for junior high school entrance exams and video lessons into GDLS, providing added-value services to their customers.
- In our Gakken online learning services, GDLS is provided within an educational metaverse space, offering an environment closely resembling a real learning center in a virtual space.
- The individualized learning advice feature, powered by generative AI, has become a strong motivator for daily GDLS usage, leading to students solving over 10,000 questions in a month.



↑ A robot character sends friendly messages personalized for every single student every day.

## Return on Investment

- One of our major clients has experienced a significant increase in GDLS users. Specifically, during the six months since March of last year, the number surged from about 300 students to around 3,000 students, nearly a tenfold increase.
- For digital learning materials aimed at schools within the Gakken Group, we provide 'Personal Mode' as an individualized learning feature. Currently, the number of registered users has surpassed 40,000.
- In the smartphone app for arithmetic drills using the GDLS platform. The number of arithmetic problems solved within the app surpassed 1.6 million within the first three and a half months after its release.



Gakken's famous app leads children to learn math in a game-like manner. →