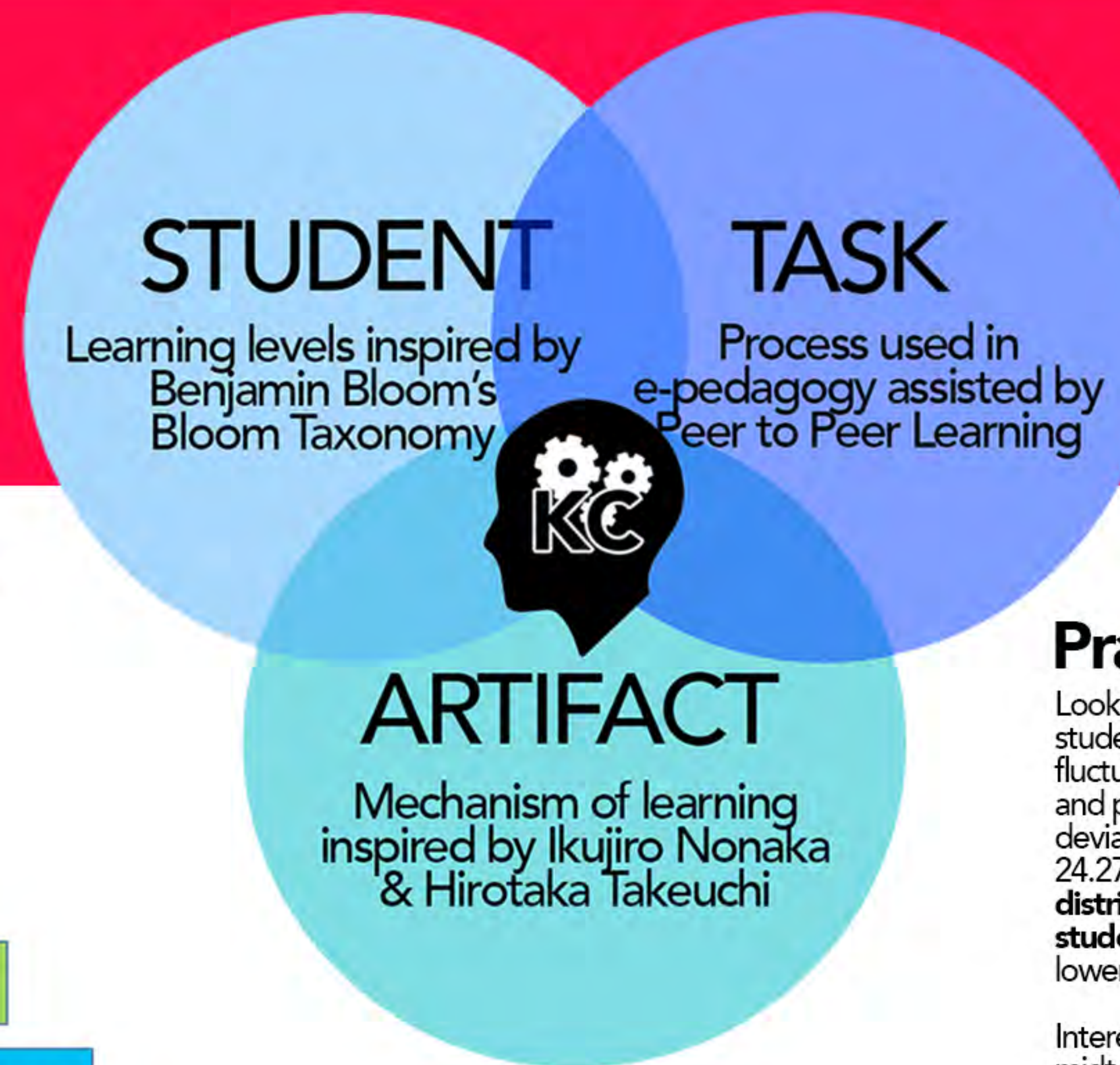


A Knowledge Management IT Tool

Knowledge Acquisition in Practice

For Practitioners: Organizations should understand how employees create knowledge through the exchange of ideas, feedback and common goals. Supervisors can understand their employees better and the employees gain a sense of control on their work.

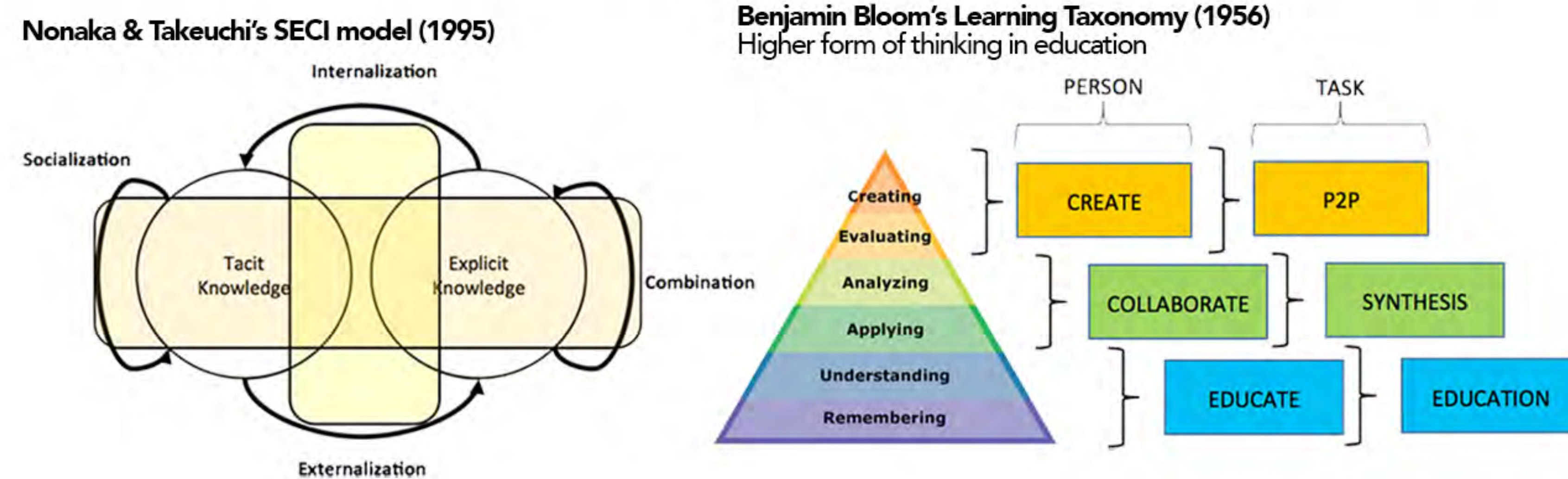
For Researchers: An ability to capture information over time on the human and community level within an environment shedding light on different variables of knowledge creation.



Features!

For 120 Students, 3 Hours Activity
Generated **over 500** Multiple Choice Questions
Categorized by Subject Matter
Collaboration of 120 Students
Online, In-Class, Hybrid

Theoretical Framework : Knowledge Management



Research Context: Marketing 101

Timeline of Activities
The course was held for a period of 13 weeks with 113 students at the University level. The IT tool was used in 2 instances and tested in 4 instances.



Research Design

Performance

Student Performances
P2P trial 1
P2P trial 2
Midterm P2P
Midterm Teacher

Perception

Exploratory Factor Analysis
Davis (1989); R Saade, B Bahli (2005)
Comparison of Means
Adaptability and Perceived Usefulness
Future Use
Confidence in Adaptability over time
Perceived Usefulness over time
Type of study methods for P2P

Analysis & Results

Practice , Practice, Practice

Looking closely at the performances of 20 students in the course, we can see a larger fluctuation of the first two trials (p2p trial 1 and p2p trial 2) where their standard deviations varied respectively 17.86% and 24.27% meaning there is a **larger distribution of the grades amongst students**, some are scoring higher and some lower.

Interestingly, the performance of the p2p midterm questions increased with a mean of 91.7% and a reduction in the standard deviation to 8.045%, **which shows that as a whole, the group became more consistent in scoring with fewer fluctuations.**

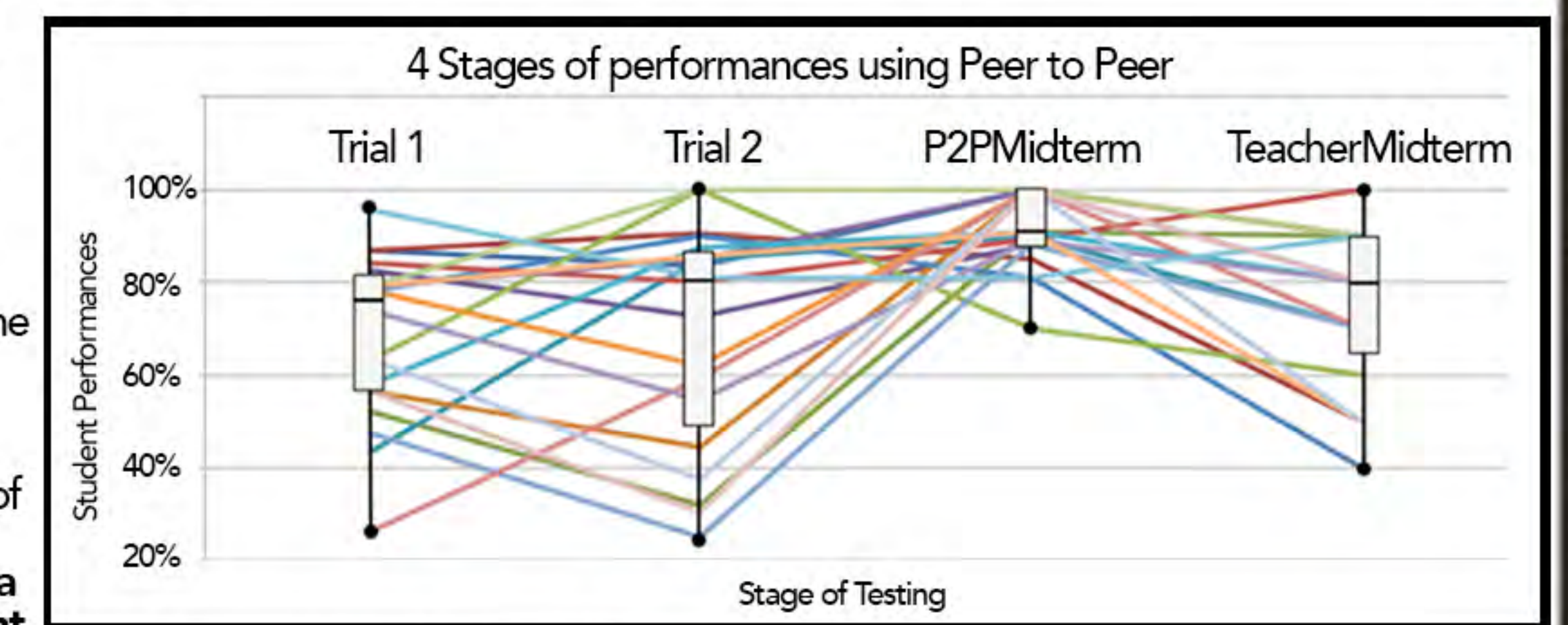


Figure 5. Progression map of student performances

Did PERCEPTION change over time?

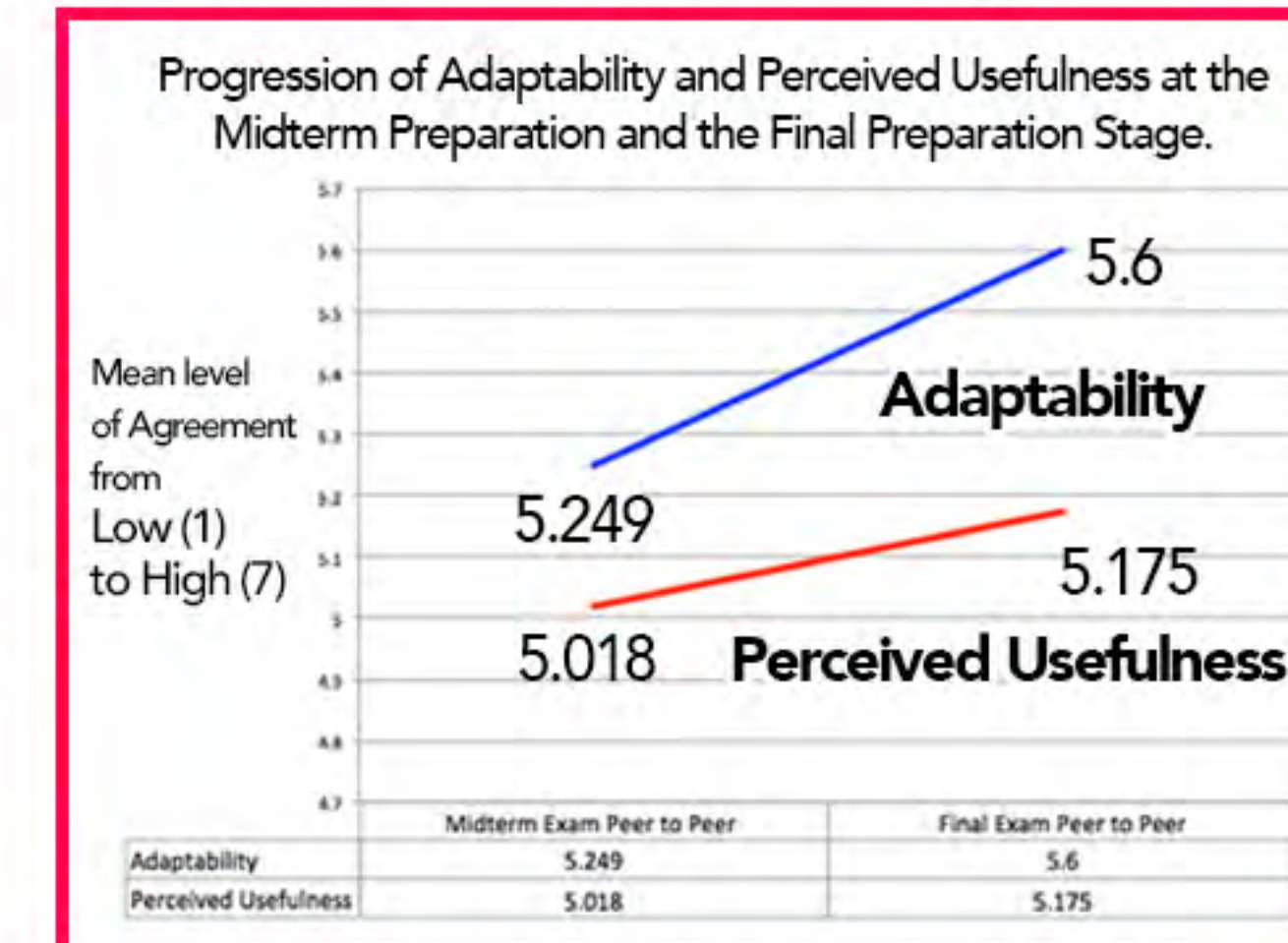


Figure 1. Comparison of means from the midterm to the final phase on adaptability and perceived usefulness

Based on the factor analysis means (Figure 1), we can see **both common constructs (adaptability and perceived usefulness) have increased from the midterm to the final exam.**

Due to their repeated use of the p2p system, **they found the tool to be more useful and easier to adapt to.** Moreover, the 2 item construct of Future use is relevant as 47% of students foresee using the system again while 27% said maybe and 27% did not foresee using the system again (Figure 2).

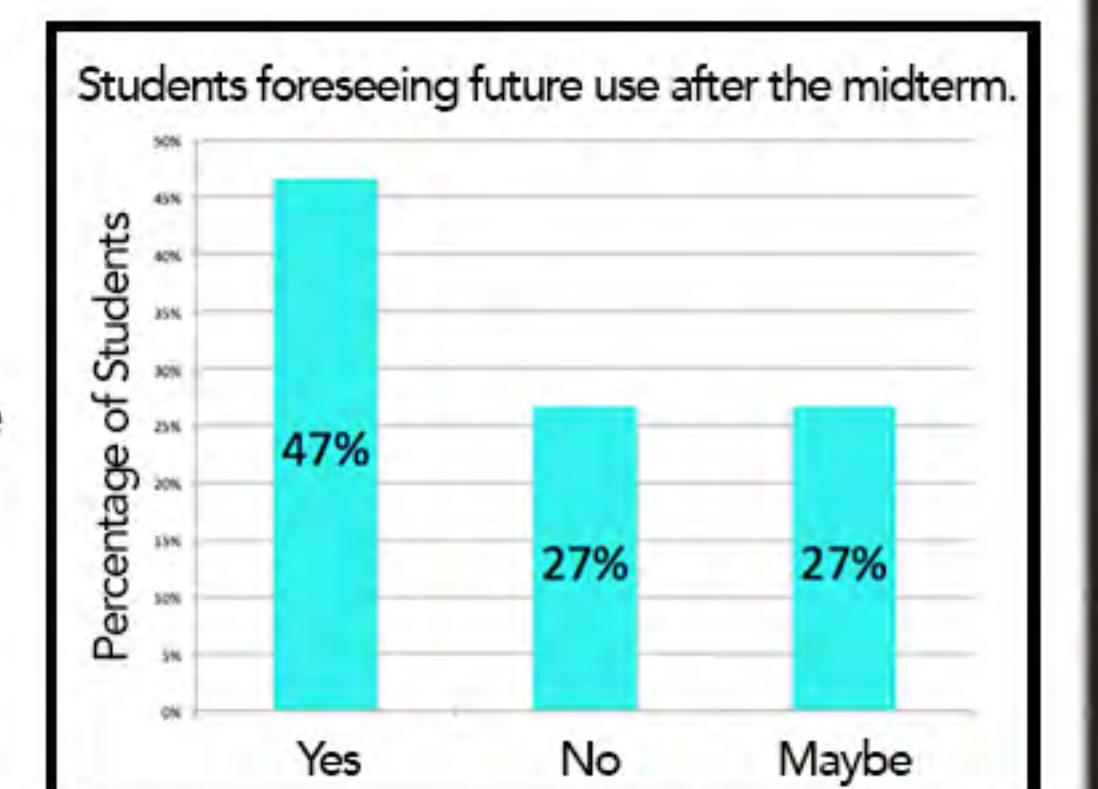


Figure 2. Summary of results of the Future Use Construct at the midterm phase

What is this tool useful for?

Finally, when asked what method of study would they actually use the p2p tool for, in Figure 6, students responded mostly (59%) to **study for an exam at the midterm, the percentage increased to 70% at the final preparation stage.**

On the other hand, while 19% found the system useful to learn in regular classes, the percentage decreased to 5% at the final preparation stage. They overall believe it is **useful for exam studies**, sometimes in group studies and tutorial but not too much to learn in regular classes.

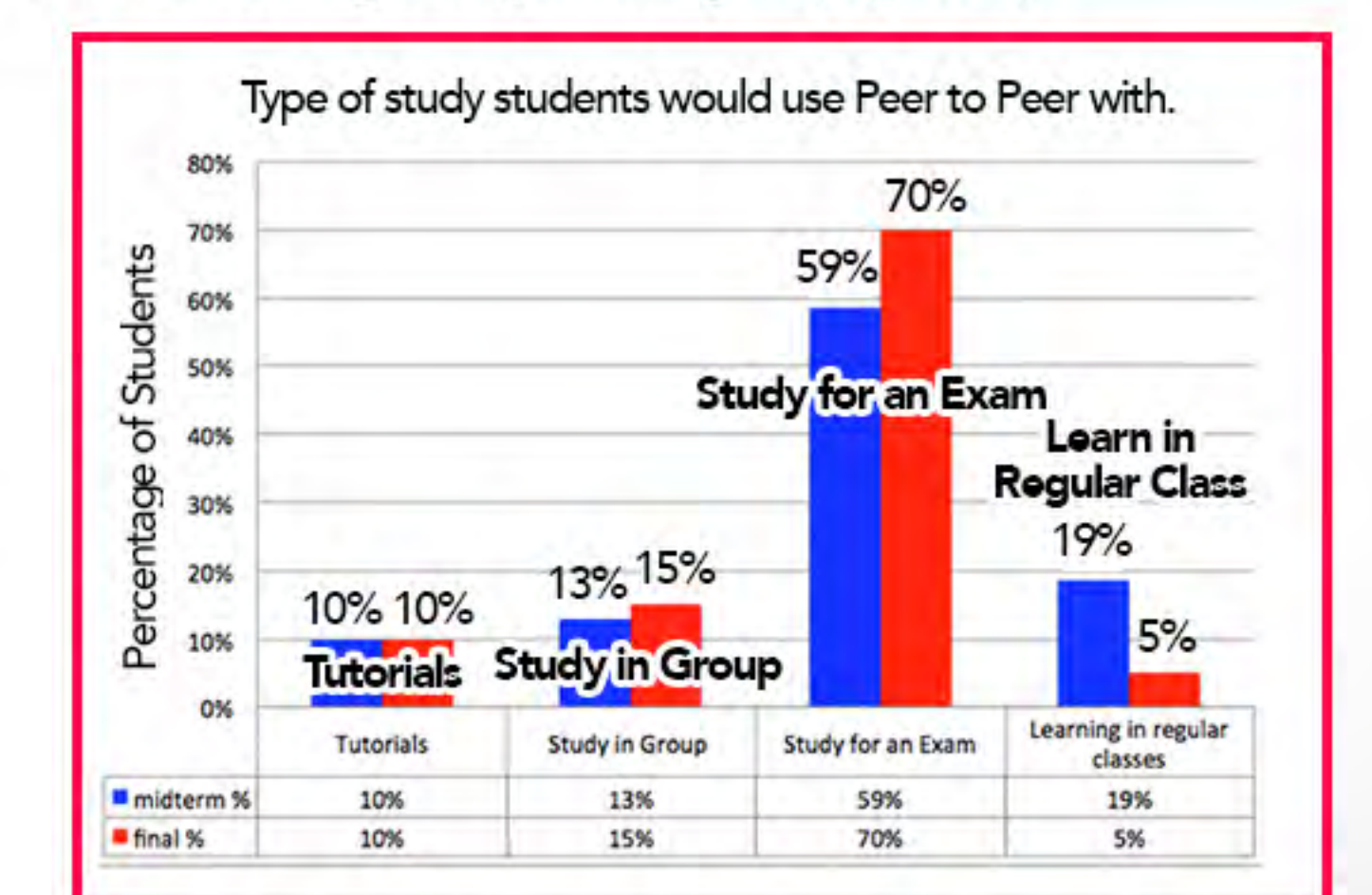


Figure 6. Type of studying method students see the use for P2P

The Information Technology Tool



Students are given the task to read through subject material and create Multiple Choice Questions.

Students can create a variety of questions by difficulty, by concepts.



The platform redistributes questions created in Phase 1 to other students within the cohort for peer assessments based on...

- Difficulty Score
- Relevance Score
- Clarity Score



Students will now take a traditional Multiple Choice Question exam based on the question, the entire group has created.

The teacher verifies and selects automatically the top quality questions based on the Relevance and Clarity Score.

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