A capacity-building research team from Evidence for Policy Design (EPoD) investigated the effect of group learning on policy decision outcomes with participants from their Building Capacity to Use Research Evidence program, which trains civil service officers in data and evidence use. EPoD conducted lab-in-field experiments by partnering with two premier civil service academies: the Lal Bahadur Shastri National Academy of Administration (LBSNAA) in Mussoorie, India and the Civil Service Academy in Lahore, Pakistan.

Both cohorts took part in a two-stage exam experiment that tested how officers use evidence to make decisions and whether collaborating with their peers can improve decision-making. First, officers individually completed a task in which they evaluated three impact evaluations of drinking water improvement projects and answered multiple choice questions to determine which study was objectively superior. Next, half of the officers were randomly selected to receive extra time to work individually, while the other half were randomly paired with another officer to review answers and reach a consensus. EPoD researchers then compared whether more learning and better decisions resulted from group collaboration or from individual learning.

Research suggests that when making decisions as a group, civil servants may not be able to efficiently harness all the collective knowledge from within the group.

However, group collaboration has the potential to improve decision making as groups collectively have more information and capability than individuals.

Government training institutions can employ teaching strategies and encourage a culture of peer learning in efforts to enhance the efficacy of civil servants’ collaboration.
**Research Findings**

The research team employed an innovative method to measure group learning using the concept of “collaborative efficiency”, or the ability of a group to harness the total information available within the group. For example, if two students score 5 out of 10 on an exam, but each student answered a different set of questions correctly, the total possible knowledge of the group is theoretically 10 (the “super student score”). If the same group scores 8 out of 10 in practice, then the collaborative efficiency is 80% (8/10), meaning that the group was able to access 80% of the knowledge that was theoretically available to them.

Researchers concluded that if officers are able to improve their collaboration skills, group work has the potential to improve decision-making. In the Pakistan study, groups harnessed about 70% of the available group knowledge, but did not ultimately improve their decision-making performance as a result of group work. However, as the total set of correct answers within the group - the "super student score" - was higher than each individual score, groups could improve their ability to use evidence and make decisions if they were better able to collaborate.

Researchers also found that when the difference in skills between two group members is large, the group score seemed to be driven by the higher-scoring student, resulting in a better group performance. However, when the individual knowledge of the two group members is diverse (little overlap between correctly answered questions), it seems to be more difficult for officers to agree on an answer, resulting in lower group performance.

Last, findings show that additional time does not always improve decision-making. In the Pakistan study, researchers designated a control group for the experiment. This allowed researchers to test whether task performance between the first and second stages improved as a result of the group collaboration or if learning over time improved scores instead. In this case, the researchers did not find that learning over time occurred; officers did not use the extra time to change or re-evaluate their answers. One possible explanation is that the task was too challenging, thus hampering learning in the short term.

In the India study, groups achieved an average collaborative efficiency score of 90% and performed better on average than individuals. In this study, researchers did not designate a control group and all officers completed the group collaboration phase of the experiment; researchers compared the scores of individual officers before they were separated into groups with the subsequent scores they achieved when working together. However, as collaborative efficiency was still less than 100% on average, researchers concluded that there is still room for improvement, as officers did not retrieve all of the information available within the group.

Overall, researchers find that group learning has great potential to improve decision-making among policymakers, both within a formal training setting and possibly in officers’ work environments. Key to the success of group collaboration is finding ways to make group learning more efficient, possibly by increasing group size, diversifying group composition, providing groups with decision-making aids, or more systematically fostering peer collaboration within training cohorts.

**How can Civil Training Academies Effectively Use This Information?**

Institutions that train civil servants can encourage the use of group learning throughout their curriculum and encourage trainees to collaborate. However, they should supplement group learning with other pedagogical devices.

For example, instructors can vary group sizes and provide guiding questions to help aid in collaborative activities. Instructors can also foster an environment of collaboration by having trainees collaborate more regularly and with different individuals.