Divergent Thinking

Idea In Short

Better decisions start with a wider set of options. Divergent thinking is the practice of generating many different ideas before choosing among them, and it counters the habit of settling on the first workable answer. Research on brainstorming shows that groups often produce fewer ideas than the same number of people working alone, partly because only one person can speak at a time. The fix is a hybrid process in which individuals write ideas silently, share them, and then build on them together. Measure quality, not just volume, by asking people to name their best ideas. Before your next big decision, require each participant to bring three options that differ in kind.

Teams usually pick the first idea that looks workable. The first idea feels like progress, and nobody wants to prolong the meeting. Divergent thinking pushes back by asking the group to widen the field of options before narrowing it. This article reviews the research on how to do that well, covers the pitfalls of group brainstorming, and explains why measuring ideas takes care.

Why widen the field

Decisions can only be as good as the best option on the table. When a team considers two choices, one of which is a weak straw man, the result is a decision about a false contrast. Divergent thinking adds real alternatives, including options that differ in kind and not merely in degree. A consultant might propose partnering, acquiring, building, licensing, or waiting, where the client had assumed the only question was how fast to build.

The practice also surfaces assumptions. When people must produce five ideas, they quickly exhaust the obvious ones, and the later ideas push them to question constraints they had treated as fixed. That questioning often yields the most valuable option.

The problem with group brainstorming

Brainstorming gained fame as a group technique, yet the research record is humbling. Michael Diehl and Wolfgang Stroebe tested explanations for the weak results of brainstorming groups in a 1987 study. They found that production blocking, in which members wait for their turn to speak and lose or forget ideas in the meantime, accounted for most of the productivity loss.1

A meta-analysis by Brian Mullen, Craig Johnson, and Eduardo Salas combined many studies and reached a consistent conclusion. Groups were less productive than nominal groups, in which individuals work alone and the facilitator pools their ideas afterward. The losses grew larger in larger groups, when an experimenter was present, and when contributions were spoken rather than written.2 The pattern carries a practical message. Leaders should stop assuming that a room full of people yields more ideas than the same people working apart.

A hybrid process

The research does not argue against groups. It argues for a better sequence. Groups add value when they combine, refine, and select ideas, because other minds notice flaws and connections that an individual misses. The remedy for blocking is to remove the need to wait.

A hybrid process works as follows:

1. State the problem in one clear sentence
2. Give each person five to ten minutes to write ideas alone
3. Collect the ideas without attribution and display them together
4. Let the group combine and extend the ideas
5. Switch deliberately to evaluation against agreed criteria

Writing makes the contributions simultaneous, which removes blocking, and it lowers the social cost of offering an unusual thought. The deliberate switch at step five keeps criticism from stifling generation.

Measuring more than volume

Researchers who study divergent thinking face a measurement problem that managers share. A common task, the alternate uses task, asks people to list novel uses for an ordinary

object such as a brick. A systematic quantitative review of divergent thinking assessments found that this task is the most widely used.3 Scores traditionally count the number of ideas, along with their originality and flexibility.

Counting ideas has a flaw, since people who write more ideas also tend to score higher on originality simply because they offer more chances. Mathias Benedek and colleagues studied a top-scoring method in which participants select their best ideas, and raters judge only those. They examined how the number of top ideas and the time spent on a task affected reliability and validity, and the method removes the confound with the sheer number of ideas.4 Managers can borrow the logic by asking each person to nominate their best two or three ideas, in place of judging the whole list.

Is flexibility its own skill

Flexibility, the ability to produce ideas from different categories, sounds valuable for decision makers. Sven Weiss and Oliver Wilhelm tested whether it adds anything beyond fluency and originality in a study of 409 adults. Their results suggested that flexibility is mostly a method effect, which means that its scores may reflect how the test is built more than a separate ability.5

The finding urges caution. A leader who wants variety should ask for it directly, for example by requiring options that differ in kind, and should avoid assuming that variety will appear as a by-product of volume.

Applying it to a decision

Suppose a retailer must decide how to respond to a competitor's discount program. The default option is to match the discount. A divergent session produces other ideas. The retailer could improve delivery speed, bundle products, offer a membership, target the competitor's weakest category, or cut prices selectively on items that drive traffic. Each option reflects a different theory of how customers choose.

After the generation phase, the team compares the options against criteria such as cost, speed, and fit with the brand. Often the best choice combines two ideas. The team would not have found the combination if it had stopped at the first workable answer.

Preparing a session

Preparation determines whether the session widens the field or merely fills time. The facilitator should frame the problem so that it invites several kinds of answer, for example by asking how the company might protect its position instead of asking which discount to offer. The invitation list matters too, since a group drawn from one function tends to produce variations on one perspective. Include at least one person who understands customers directly and one who understands operational constraints, and ask each to contribute independently before anyone speaks.

During the session, the facilitator tracks the categories of ideas on a visible board. When one category dominates, the facilitator asks the group to name a category that is missing and to generate ideas for it. The approach converts the abstract goal of variety into a concrete prompt that participants can act on. Afterward, the facilitator records every idea, including those that the group rejects, because a rejected idea sometimes becomes useful when conditions change.

From options to commitment

Divergence has value only when it ends in a choice. Once the group has a broad set of options, it should cluster similar ideas, discard those that violate a hard constraint, and score the survivors against criteria agreed beforehand. Weighted scoring, a short pre-mortem on the leading options, and a quick test of the riskiest assumption each add discipline without slowing the process unduly. The team should also record why it rejected the options it set aside, since the reasons often reveal hidden assumptions about customers, cost, or capability. A final step asks whether any two options could combine, because hybrids frequently dominate the pure forms. The sequence moves the group from expansion to convergence in a deliberate way, and it protects both the creativity of the first phase and the rigor of the second.

Pitfalls

Three problems recur. Teams generate many options that are variations of one idea, which creates an illusion of breadth. Leaders signal their preference early, which narrows the field. And groups skip the switch to evaluation, so the ideas never reach a decision.

Counter these with simple rules. Require options that differ in kind, ask the most senior person to speak last, and set a time for the switch to evaluation before the session begins.

- 1Productivity loss in brainstorming groups: toward the solution of a riddle
- 2Productivity loss in brainstorming groups: a meta-analytic integration
- 3A systematic quantitative review of divergent thinking assessments
- 4Assessment of divergent thinking by means of the subjective top-scoring method
- 5Is flexibility more than fluency and originality?

Summary

Divergent thinking widens the field of options, and the evidence suggests how to do it well. Individuals working alone usually generate more ideas than the same people in a conventional brainstorming group, and larger groups lose more output. Written contributions reduce the loss that comes from speaking in turn. Assessment research warns that counting ideas misleads, since quality matters and some scoring methods fix this by focusing on each person's best ideas. Combine silent individual generation, structured sharing, and a deliberate switch to evaluation. Try it on your next decision, and compare the options you reach with the ones you would have chosen first.