

Mistakes and Dealing with Them Worksheet

DRAFT VERSION FOR FEEDBACK

Mechanism

If you attempt something new and useful, you do things for the first time. You do not know whether they will work. Sometimes you are wrong. Mistakes will happen. And if you attempt larger projects — for example, because your creative system has become capable of handling them — the mistakes will likely become larger as well.

In this sense, mistakes are a natural part of creativity. In some realization approaches, for example iterative design, you «fail better» in later iterations. But it still takes many trials to get something right.

Over time, you will make fewer beginner's mistakes. Domain experience and craftsmanship prevent some errors. But they do not remove mistakes from creative work. The trite version is still true: what matters is that you are willing to make mistakes and learn from them.

This does not mean seeking mistakes out. Mistakes still have to be defensible — a valid decision based on the information you had at the time. Avoiding all mistakes would mean never stretching yourself and never really trying something new.

But it does mean not fearing mistakes so

much that you cannot act, and being able to deal with them when they happen.

Applicability

This worksheet is relevant if you are reluctant to make defensible mistakes or have a hard time dealing with them.

The sheet addresses normal failure. In the case of gravity problems — constraints you cannot remove by effort, only route around or accept — nothing else but mistakes and failures *can* happen. In that case, trying again would itself be the mistake (see also escalating commitment or sunk-cost fallacy). A representational shift might still bypass the issue

(see □ Creativity Methods), but brute effort will not.

Intervention Variables

The following aspects are helpful in dealing with mistakes. A lot depends on the underlying mindset and error culture, see Box 1: Mindset or Error Culture.

Box 1: Mindset or Error Culture

A life without mistakes or failures might sound nice — everything works out, nothing goes wrong. In practice, that would be hell on earth. Nothing would mean anything, nothing would matter, no effort would be needed, there would be no tension, no risk — because nothing could ever go wrong. It would be like playing a first-person shooter on God mode: fun for a moment, then boring as hell.

Mistakes and failures are normal when you are learning your craft and when you attempt things that are new. Learning from them is what makes you competent (see □ Learning).

So while you should not invite mistakes or errors, it is okay to fall, relapse, take hits. It just is. Just do not stay there. The fear you feel before making a mistake or failing is often an indicator that you care about the work (see □ Fear and Courage). Used well, it can push you to prepare — learn, train skills — and carry the work through, especially if you can reattribute the arousal, for example by turning «stage fright» into energy during presentations.

Usually, a mistake or failure is not the end of the project. In prototyping or iterative design, it is one development cycle. The real problem is not the mistake itself, but being unable to learn from it — for example, because the new feature was not used, or the observation was too biased. In this sense, every iteration, mistake, and failure gives you more information. The idea or project might have failed; that does not make you a failure. It is a setback. It also means you tried and — likely — gave your best.

Other people might not share that assessment. The world is quick to criticize and find fault, and much slower to praise or see what worked. This is especially true when people experience your attempt to improve things as a threat — to their egos, livelihood, social standing, or whatever else they are protecting.

The error culture you are operating in has a strong effect. Some environments punish the person who reports the problem; others treat reported errors as early warning signals. Unsurprisingly, the second kind is better for dealing with errors, and therefore also better for creative work.

A vivid if exaggerated example of different

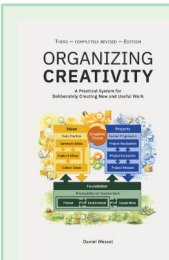
error cultures is the comparison between surgeons and pilots. Surgeons are often said to have a high opinion of themselves and to resist correction; pilots are trained to take the assessment of co-pilots seriously. Wagging tongues claim this is because surgeons' failures get buried, while pilots cannot hide from their mistakes — nor escape the consequences themselves.

In this sense, a good error culture is one where mistakes and failures can be pointed out, where people take responsibility and act to improve the situation: «What can we learn from it?» Exploration is possible, mistakes are dealt with constructively, and refusing to learn from them would be unacceptable. A bad error culture stigmatizes errors — «These things do not happen here.» And if they do occur, the reflex is to find who is at fault or to justify the error away.

Just because mistakes happen does not mean you are helpless. You can reduce their impact. You can train until craftsmanship mistakes become unlikely. You can also prepare well enough to be righteously confident that you can deal with mistakes and failures when they occur.

Relevant Chapters

For background information, see Chapter 4: Person and Chapter 14: Project Evaluation.



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Classification of Mistakes

Mistakes vary wildly in responsibility, mechanism, cause, scope, and reversibility.

Responsibility

- **Defensible Mistakes:** At the time, the mistake was not reasonably foreseeable. You did not ignore a known warning, skip a required check, or pretend uncertainty was certainty. Hindsight may make the mistake look obvious, but with the information available then, the decision was defensible. Ask: Did I have enough information to know better? Did I ignore a warning?
- **Negligence:** You should have known better. Annoying and painful. It should lead to the question: «*Why didn't you do better?*» — and then to attempts to reduce the likelihood in the future.
- **Misconduct / deliberate concealment:** The worst kind of mistake. See Ethics for more information.

Failure Mechanism

- **Wrong assumption / wrong model:** Knowledge was missing or wrong. This is where the value of mistakes is clearest: they reveal wrong assumptions, allowing you to improve the next version.
- **Lapse:** You normally know how to do it, but you forgot to do something. Attention or memory was the problem. Annoying, but it happens. For example, you forgot to make backups, send an email, or check the export settings before publishing. Automation, reminders, cues, checklists, routines, calendar triggers, and

environmental prompts can help.

- **Slip:** The intention was right, but execution went wrong. For example, the tool «*jumped*» and damaged the work, or you clicked the wrong button. As with lapses, prevention matters: breaks to maintain focus, better interface design, separation of similar options, clearer labels, confirmation steps, slower handling at critical points, undo/versioning, or a better physical layout.
- **Craft/skill error:** You attempted the right action but lacked the current capability to execute it reliably.
- **Communication error:** Information was missing, ambiguous, late, or misunderstood.
- **Decision error:** The choice process was flawed — wrong priority, rushed judgment, missing constraint.

Cause

- **Person:** The mistake came from attention, memory, skill, judgment, fatigue, emotion, or communication. The main source of errors, but then again, also the only source of innovation.
- **Tool/Material:** The error came from the tool or material, for example an *unexpected material failure*. If the tool or material had already indicated an issue — behaving strangely, degrading, showing warning signs — it is often closer to negligence than unforeseen technical failure.
- **Environment/organization/system:** The environment, including the organization, made the failure likely. For example, it

rewarded the wrong thing. The issue is then deeper than the current work: shape the system, work around it, or leave it.

- **External/Random Event:** Sometimes mistakes happen because of freaks of nature, such as weather. As with technical failures, what matters is whether they could reasonably have been foreseen.

Scope

- **Minor:** By definition, minor mistakes do not matter much — unless they occur so frequently that they become a problem.
- **Major:** Major mistakes require substantial redesign. Without it, the work might still function, but badly — for example, a fiction book that conveys a story, but constantly distracts the reader with side issues.
- **Showstoppers:** Showstoppers prevent the work from succeeding. Unless they are solved, the work is essentially useless. This also applies to issues affecting the creative person, for example a career-ending injury in dance.

Reversibility

- **Easily Reversible:** These mistakes burn only a few resources, such as time or cheap material.
- **Reversible at Cost:** You can continue the work, but the costs of the mistake are substantial.
- **Irreversible:** You lost valuable resources you cannot replace, or you negatively affected human life.

Note that public pushback does not necessarily

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mean you made a mistake or were wrong. Nor does it mean the public was right (see also Dealing with Social Resistance to Creativity).

Reduce the Likelihood

A good error culture finds errors and devises ways to prevent them. Environmental design is especially powerful here — for example, making it impossible to perform certain actions accidentally. Other useful approaches include checklists, stopping rules, peer review, and pre-mortems.

You can also look at other people's errors to avoid making them yourself. For example, read career descriptions of successful and «*failed*» people in your field — not to be discouraged or feel superior, but to learn from them. Some conditions will have changed, and some errors may be unlikely today, but the underlying principles often remain valid.

Common sources of mistakes when making decisions include:

1. **A mismatch between emotion and logic:** Many situations need both, but in different amounts. Sometimes emotion overrules logic when logic is needed — it feels good but is wrong. Sometimes logic overrules emotion when resonance is needed — the story might be «*true*» but does not work.
2. **Short-term thinking:** People frequently overweight short-term gains and underweight larger, more important long-term gains. «*Respicere finem*» [consider the end] is not the worst reminder here.
3. **Wrong focus:** Usually, the focus should be on your actions — not spectators, real or

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imagined; not future tasks; not even the target.

4. **Sloppy endings:** Many craftsmanship errors happen near the end, when attention has already moved to the next project.

These are only examples. There are many other sources of mistakes (see □ Fallacies and Biases).

Increase Detectability

Some mistakes can be corrected or become irrelevant without your doing anything. Usually, however, the longer a mistake remains undetected, the worse it becomes — for example, when unviable projects keep consuming resources.

Feedback, measurement, and milestones provide standards against which mistakes become visible. Still, we are very capable of overlooking errors. Confirmation bias — looking for confirming information, here that everything is fine — can make conflicting information disappear from view. In this sense, working with physical materials is often easier. Wasted resources and things that crash are harder to ignore.

People embedded in bad systems are often highly trained not to perceive mistakes. It is not only that they are not incentivized to address them; they are trained out of recognizing them in the first place. In part, because authorities and colleagues do not address them either. This creates pluralistic ignorance and leaves mistakes unaddressed (see also □ Integrity).

Look for disconfirming information that everything, and keep your own perspective.

Limit Damage

As mistakes will always occur when you are being creative, it pays to limit the damage they can do.

Kill criteria, defined when deciding to realize a project, help prevent escalating commitment and sunk-cost fallacy (see book Chapter 12: Creative Commitment). Other ways to reduce damage include ensuring reversibility, working in small batches, using version control and backups (see □ Backups), using test environments, placing hard caps on material, money, and time, and releasing the work in stages to gauge its impact.

Reacting to Mistakes

Mistakes, especially painful ones, are emotional events. But the biggest risk is making them worse — either in the situation itself through blind actionism that produces additional damage, or afterwards through bad reactions.

Bitterness or resentment is like a withering tree, unable to create life. Envy of other people's success stifles your growth, because the focus shifts to another person instead of your progress. Excuses insulate the mistake and prevent you from learning from it.

A better process is the following.

If Relevant: Stop the Ongoing Damage

Some mistakes incur increasing costs quickly — for example, a punctured water pipe or a program acting wrongly. In these situations, stopping the ongoing damage takes precedence.

1. Give Emotions their Room

Nobody *likes* making mistakes, so a negative emotional reaction is normal. But you usually still have some control over where and how you react. If necessary, go somewhere private, especially if you are angry or need to scream, shout, or cry. Keep it time-bounded, for example ten minutes. Always pretending to be stoic communicates the wrong message — that you do not care about the work — and makes you brittle.

2. Regain Enough Composure to Think

Once your emotions have had some room, create distance. For some people, that means going for a walk. For others, it means talking with someone who knows the context but is not emotionally invested.

Distance helps you assess the situation more accurately, especially if you are oscillating between «*worst thing ever*» and «*not so bad*», or if you are stuck in a catastrophizing scenario (see Box 2: Perspective on Mistakes). It also stops you from making the situation worse. In some cases, immediate decisive action is needed — health emergencies, water damage — but blind actionism is pouring oil on fire.

Emotions, especially fear, anger, and panic, show you what is important. They usually do not show you how to address it best. A useful question for regaining perspective is: «*In five years, will this matter?*»

One emotion that is useful here is curiosity. First, because it is incompatible with fear and anger. You could walk through a haunted house calmly if you were genuinely curious about how the «*ghosts*» work. Second,

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curiosity lets you identify what went wrong without immediately turning the event into self-defense.

3. Classify the Mistake

Take an honest look at the mistake and the situation — open, without excuses. Use Table 1 to classify it. Look at the current and future effects of the mistake, and at what led to it in the first place. After all, at some point in the past, that decision was not a mistake. It was something you decided to do.

How did it feel then? What did you think? Where were you wrong? What is a symptom, and what is the root cause?

4. Identify What Is Still Changeable

While analyzing the situation, you will identify aspects that are given. You cannot change that the mistake happened. But you can change how you react to it, and other aspects are still changeable. You can mitigate the effects.

So accept that the mistake happened, accept what cannot be changed, and be creative about the rest. If you identify and lay out the available options, the chance of finding a solution increases.

«It happened. What are you gonna do about it?»

Kevin Sorbo's Wife after his stroke

5. Act on the Next Controllable Step

After some mistakes, you might want to hide or crucify yourself. Neither helps. The best way to deal with mistakes is to show — to others and yourself — that you can deal with them constructively. That might sound trivial or pollyannaish, but it is neither. Nobody

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wants to be in that situation. But once you are in it, get through it with your dignity intact.

After you have analyzed the situation and identified what cannot be changed, fix what you can. First, do not make it worse. Stop the negative effects. Then identify the cause and prevent it from recurring — or at least reduce its likelihood. Be careful: trying to prevent future occurrences too aggressively can increase the risk of this or other mistakes.

In special cases, ask someone else to address the issue — for example, if you are deeply involved, have hurt another person, or the situation involves misconduct.

«This too shall pass. It might pass like a kidney stone. But it will pass.»
Unknown

6. Add or Adjust a Prevention/Detection/Damage-Limiting Mechanism

A mistake that happens more than once is usually a choice — the choice not to invest in prevention, detection, or damage-limiting mechanisms. While you should not overcorrect, check whether the likelihood or impact of the mistake can be reduced in the future (see Trial Definition).

7. Close the Event and Return to Work

After addressing the issue, give your emotions some room again. Confronting a mistake usually takes something out of a person. Take a breath. This is not a fluffy-bunny self-affirmation. It is the pause you take after a sprint, or a marathon.

If the mistake was not deliberate and you did what you could to fix it, you have done what you could. Move on, taking the lessons with

you and leaving the useless emotional residue behind.

Ideally, a mistake does not destroy or define you, but strengthens the system around you. You are not your mistakes, and your mistakes do not need to determine your future.

«A city of five million people. Within a month more than half were dead. Six weeks later, about ten thousand like me. [...] By the end of the year, it was me. Just me.»

«How? How did you do it?»

«I remained calm. It's the great secret of survival. When all around is chaos, when everyone is driven to the brink of insanity ... relax.»

Neville and Anna in «I Am Legend» (Movie Script)

Responsibility Boundary

You should take responsibility for your work, including your mistakes (see □ Ethics). But responsibility has limits.

On the one hand, you are individually responsible for your work and its effects. Fault and responsibility are not the same:

- **Fault:** You caused the situation, for example by hitting someone with a car.

- **Responsibility:** You are part of a situation and able to intervene. You are *not* at fault, but you are accountable for what is within your control.

People who are at fault are usually also responsible, but the reverse is not true. If your colleagues do something wrong, you are not at fault — but you might be responsible to help resolve the issue. Even though people subjectively experience a «*diffusion of responsibility*» when others are present in an emergency, that does not absolve you.

On the other hand, ask yourself: What is mine to fix? What is not mine? Who must be informed? What must be documented? What requires escalation?

Especially when the mistake becomes larger, you do not need to shoulder everything yourself.

Trial Definition

Dealing with mistakes is partly mindset, but also practice. The good news is that if you work creatively, you will have many opportunities to practice dealing with them.

Start by assessing the baseline (see Table 1).

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Focus first on mistakes that matter: large scope, low reversibility, or high damage to trust. Smaller mistakes can become relevant if they are extremely frequent.

Then determine how you can reduce the probability of the mistake, and how you want to react the next time it happens. Choose something frequent enough to occur within the next two weeks. When it happens, use it to train your reaction to mistakes. Table 2 shows problems and possible interventions.

Use the table to choose **one lever** for the next trial. Do not try to fix all mistake patterns at once. If several rows apply, start with the one where the mistake is most frequent, costly, irreversible, or damaging to trust.

Be careful not to overcorrect. After a painful mistake, people often add too many controls, avoid the work, seek approval for everything, or stop taking defensible risks. As usual, assess the effect not only on the local issue but on the creative system. A system that occasionally «*screws up*» without entering the major/showstopper/irreversible classifications is preferable to a paralyzed system that never makes mistakes because it produces nothing.

Mistake	Failure mechanism	Cause/source	Scope	Reversibility	Detection delay	Frequency	Current safeguard

Table 1: Failure Baseline Table

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If the problem is... (Trial direction)	Possible interventions
I forget known steps (Lapse prevention trial)	reminders, checklists, calendar triggers, visible cues, default routines, automation
I do the right action wrongly (Slip reduction trial)	layout changes, clearer labels, separating similar actions/tools, confirmation steps, undo/versioning, slowing down at critical points
I am surprised by wrong assumptions (Wrong-assumption trial)	prototype, test run, external critique, red-team question, disconfirming evidence, pre-mortem
I make too many craft errors (Craft error trial)	deliberate practice, slower execution, warm-up repetitions, quality threshold, peer review, stop point when tired
Tools or materials fail too often (Technical/material failure trial)	maintenance, inspection, backups, spare parts/materials, test environment, material limits, replacement criteria
The system makes mistakes likely (System failure trial)	change incentives, add checkpoints, clarify responsibilities, escalation path, remove conflicting demands, leave/exit if the system cannot be changed
External events keep disrupting the work (Random external event trial)	buffers, contingency plans, flexible deadlines, fallback locations/tools, reversible staging, insurance/reserves where relevant
I notice mistakes too late (Early detection trial)	milestones, review checkpoints, progress indicators, test audiences, automated checks, comparison against standards, scheduled disconfirming review
Mistakes become too expensive (Reversibility / damage-limiting trial)	small batches, prototypes, backups, version control, staged release, spending/time caps, sandbox/test environment
I freeze, hide, or spiral after mistakes (Mistake reaction drill)	pause sequence, private/time-bounded emotional reaction, written incident note, classify mistake, choose next controllable action, inform relevant people
My environment punishes surfacing errors (Error culture probe)	ask « <i>What are we missing?</i> », anonymous issue collection, blameless review, explicit escalation route, document concerns, test whether criticism is usable
I keep repeating the same mistake (Post-mistake review + prevention mechanism)	after-action review, recurrence log, identify trigger pattern, one safeguard, one removal of friction, scheduled follow-up check

Table 2: Problems and Possible Interventions

Five Example Trial Templates

1. **Mistake Reaction Drill:** For two weeks, when a relevant mistake happens, use a fixed sequence: pause → write what hap-

pened → classify type/scope/reversibility → choose next action → log follow-up. Success: you used the sequence on at least three mistakes without making the situation worse.

2. **Early Detection Trial:** Choose one project where mistakes are noticed late. Add one detection mechanism: weekly review, milestone test, peer check, automated validation, or physical checklist. Success: one

mistake/risk is detected earlier than usual, or no extra detection value appears and the mechanism is dropped.

3. **Reversibility Trial:** For one risky project phase, reduce the cost of mistakes by using small batches, versioning, backups, mock-ups, test audiences, or limited release. Success: at least one decision becomes easier to reverse or cheaper to correct.
4. **Error Culture Probe:** In a team or collaboration context, test one small behavior: explicitly ask «*What are we missing?*» at a defined checkpoint. Success: at least one disconfirming observation is surfaced, or the environment proves unwilling to surface errors.
5. **Post-Mistake Review:** After one meaningful mistake, write a one-page after-action review: what happened, what made it likely, what signal was missed, what will change, and what will not be overcorrected. Success: one concrete prevention, detection, or damage-limiting change is implemented.

Full Worked Example

- **Mistake:** I keep exporting the wrong file version.
- **Responsibility:** Negligence/lapse, because I know the check is needed.
- **Failure mechanism:** Lapse + slip: I forget the check, then select the wrong file.
- **Cause/source:** Person + interface/file structure.
- **Scope:** Major if sent to client; minor if caught internally.
- **Reversibility:** Reversible at cost.

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- **Detection delay:** Often only after sending.
- **Current safeguard:** Memory. Weak.
- **Trial direction:** Lapse prevention + slip reduction.
- **Intervention:** Export checklist, «FINAL_EXPORT» folder, filename convention, 30-second pre-send check.
- **Success:** Four weeks without sending the wrong version; check used on 90% of exports.

Hand-Off

Mistakes can be reduced — in frequency and in their effects — but they will always be part of creative work. Still, your reaction shapes how bumpy the creative road becomes when you hit them.

More Information

- Schwartz, M. A. (2008). The importance of stupidity in scientific research. *Journal of Cell Science*, 121(11), 1771–1771. <https://doi.org/10.1242/jcs.033340>
- Star Trek TNG: «*Tapestry*»

Box 2: Perspective on Mistakes

Sometimes it helps to keep mistakes in perspective. If you think you have fucked up, it could have been worse.

- In 1628, Sweden launched the warship *Vasa*, intended as a prestige weapon. Before its voyage, a stability test was reportedly stopped after thirty men running across the deck made the ship roll so badly that officials feared it might capsize at the quay. Under pressure to get the ship to sea, it sailed anyway. It made it about 1,300 meters before a gust tipped it, water poured through the open gunports, and it sank in front of spectators. The ship was too tall, too top-heavy, and too politically important for people to stop it.
- In 2007, a cocaine-smuggling operation off the coast of Cork collapsed because

of a basic mechanical mistake. The traffickers were trying to bring ashore around 1.5 tonnes of cocaine, worth up to €440 million, using an inflatable boat near Mizen Head. The boat's petrol engine failed after diesel was put into it, the vessel overturned in rough water, and dozens of bales of cocaine ended up in the sea. The error was mundane; the loss was spectacular.

- In 2012, Knight Capital deployed new trading software, but one of eight servers did not get the new code. That server kept running old «*Power Peg*» code and began spraying erroneous orders into the market. In about 45 minutes, Knight generated over 4 million executions in 154 stocks, involving more than 397 million shares, and lost over \$460 million. One botched deployment plus weak controls can become a corporate near-death event before lunch.