ICEFALL Guidelines

Purpose

These guidelines explain the context, structure, roles, sessions, tools, and techniques that you could use within a team as a starting point.

These guidelines were developed by Gareth Davies based on twenty years of learning, observing, coaching, and training teams and individuals.

Overview

ICEFALL is a learning-focused set of guidelines for rapid innovation in complex knowledge-based environments. It consists of a simple structure that focuses a team of deep specialists on creating something of value. These guidelines help a team by fully embracing the division of labour, combining it with the power of mentoring and knowledge sharing.

ICEFALL is a long-term investment in the health of individuals, teams, and an organisation. At first it can be disruptive to the team implementing these guidelines. It also requires adjustment from their supporting community. Innovating and uncovering dysfunction on a regular basis may make some people uncomfortable. They may struggle to get used to working within these guidelines and the transparency they bring. People who benefit from the status quo rarely try to change it. It may take many weeks and/or months in order for a productive and predictable rhythm to be established by a team.

Understanding the mechanics of ICEFALL is straightforward. It combines a unique blend of roles, cycles, sessions, tools, and techniques. Becoming adept and experienced requires patience, discipline, and practice.

These guidelines cannot provide a solution to every problem. They will not work for every team in every possible context. It is up to you and your team to decide whether to try using these guidelines, or others, or to make things up from scratch. Regardless of your method, make learning your top priority.

Philosophy

The values that these guidelines build upon are:

Curiosity

"I think, at a child's birth, if a mother could ask a fairy godmother to endow it with the most useful gift, that gift should be curiosity."
~ Eleanor Roosevelt

Discipline

"Success is not a matter of mastering subtle, sophisticated theory but rather of embracing common sense with uncommon levels of discipline and persistence."
~ Patrick Lencioni

Empathy

"Empathy is a tool for building people into groups, for allowing us to function as more than self-obsessed individuals."
~ Neil Gaiman

Focus

"The successful warrior is the average man, with laser-like focus."
~ Bruce Lee

Genuine

"Being genuine is a personal choice. It must come from the heart."
~ Anonymous

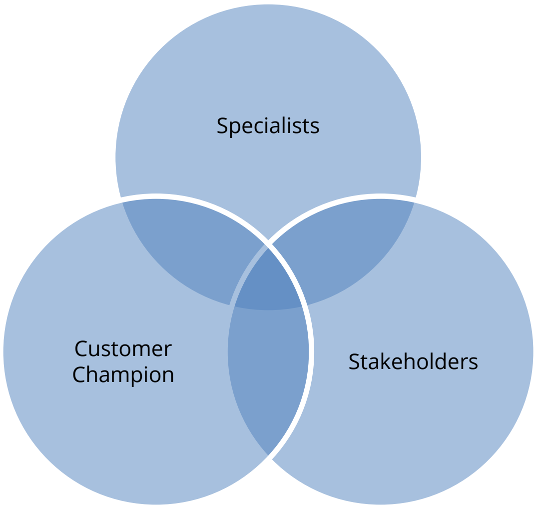
Your own personal philosophy and attitude plays a critical role in your life. It impacts the skills you choose to learn, the experiences you seek out, and the knowledge and memories you retain. When working as part of a team it becomes critical for team success. Whatever attitude you bring to the team will merge together and be reflected in the end result.

Roles

The team consists of Specialists and a Customer Champion. These are not job titles, they are simply roles.

These two roles form a triad model when joined by their stakeholders.

The triad will collaborate to share their unique perspectives and deliver value to the customer.



The team can use dynamic leadership to make decisions and move forward. No single person needs to be the leader permanently.

There is no perfect team size for these guidelines. A good place to start is six members, including the Customer Champion. A team of six people will have 16 relationships to maintain, with varying and evolving levels of communication and trust between each member.

Teams of any size can benefit by utilising these guidelines. Large teams that have more than ten people generally struggle to maintain focus. Large teams have to spend more time maintaining the high-level of communication and trust needed between members. Small teams of two or three people may struggle to deliver something of value in a timely manner on a sustainable basis. Smaller teams are more likely to be productive when they have a specialised area of work, and consist of experienced, skilled, and proactive individuals.

Any team can implement these guidelines by themselves and utilise whatever external support and guidance they have access to when they need it. When a team first implements ICEFALL it might be helpful if the team has an experienced coach from outside the team. Your team has to make that decision based on your own context and need.

Specialists

Specialists can be deep specialists, generalising-specialists, or a combination of both. These guidelines are optimised for a team of deep specialists.

The Specialists work together to define, create and deliver something of value. They are responsible as a team for quality, delivery, and ongoing support and maintenance. They invest as much of their time in creating value as possible, acknowledging that not all of their time can directly add value.

Approximately 5% to 10% of the team's time will be needed for team-based sessions. A larger amount will be required for one on one interaction with other team members and people outside the team.

A mix of both juniors and seniors is a great way to share knowledge, via coaching, mentoring, and training within the team.

Stakeholders

Stakeholders are critical while not being part of the team. They may be representing customers or they may be customers themselves. They provide guidance and support to the team on a regular basis.

The Customer Champion must build and maintain solid relationships with all stakeholders. They must ensure that the stakeholders' opinions are heard, validated, and acted on where feasible.

Time requirements for stakeholders can vary widely. It will depend on their vested interest, availability, and subject matter expertise.

Customer Champion

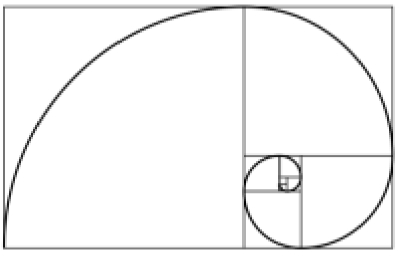
The Customer Champion works better as a separate role to reduce conflicts of interest in the team's delivery. This person needs to be primarily focused on business objectives and business outcomes. At the very least they act as an interpreter, moderator, facilitator, designer, and analyst. They regularly uncover the needs of the customers, stakeholders, and team, converting those needs into actionable targets.

Their time is split between customers, stakeholders and the team. They must ensure that enough thought and time is invested in the work that is coming up. They must be available to the team as and when the need arises. They must protect the team from unnecessary interruptions to maximise focus.

Some of the questions the Customer Champion should be asking are:

1. What is our value proposition for our customers?
2. What products/services do our customers want?
3. Who are our customers? Can they be divided up in some way?
4. Who do we need to work with and depend on to operate our products/services?
5. What is our high-level value chain/process?
6. What is the customer journey/experience?
7. What channels do we need for customers to access our products/services?
8. What are the success criteria?
9. What benefits do we expect? How will we measure the benefits?
10. What information will our teams and customers need access to?

Cycles



ICEFALL focuses teams on working around four concentric cycles: hourly, daily, weekly, and monthly.

The cycles provide a skeletal structure which the team can use for time and workload management.

Hourly Cycles

In some situations progress can be made and/or measured in hours. Think in terms of hourly cycles if you're working in a very fast-paced environment or to a deadline later the same day. Slice tasks into small increments or use the cycles as a regular time-box.

Daily Cycles

Every day a team is learning is a good investment when that learning can be applied to future work. Knowledge-based teams are paid to learn. Sharing that knowledge works well when it is frequent and in small increments. This increases everyone's chance of absorbing and retaining it.

Each day the team should make at least one opportunity to convey what has been uncovered and then plan and re-plan as needed.

Weekly Cycles

Weekly cycles help the team to maintain focus on short-term tangible actions and outcomes. Scheduling focused sessions at regular intervals will help the team keep things moving and maintain balance. This balance is between executing current work, preparing future work, and adaptation.

Monthly Cycles

Monthly cycles provide the team with a long-term horizon. They can provide a higher-level overview of the work they are performing within a wider context. Forecasting at this level is not about accuracy and precision. Forecasting enables tracking high-level progress towards a common shared vision.

Tools

Future Queue

All work that the team might action must be in this queue. This is the single source of truth for all future planned work. There will likely be a lot of items listed that will never be worked on. Employing strong discipline around regular maintenance is critical. The integrity of this queue is maintained by the Customer Champion.

The Customer Champion is responsible for ensuring the following:

- This list must be ordered and re-ordered as often as practical, at least once per week
- Delete items that have not been edited for more than three months
    - Before deletion any relevant stakeholders must be advised by the Customer Champion
- If the team agree on a specific format then the Customer Champion must ensure that the format is used and applied consistently and effectively

Ready Queue

This queue contains work that is not yet in progress but can be immediately worked on as soon as there is a gap. Items from this queue can be brought in at any time by the team.

The team are the only people that can bring work into the Ready Queue from the Future Queue. The team are responsible for ensuring that items meet their agreed level of readiness before bringing them into this queue. This level could be formalised in a document or informally agreed as a team. The team must agree as a whole before moving an item to the Ready Queue.

This queue must be kept in order as often as practical. At the very least the order must be reviewed once per week by the team. Items that sit at the bottom of this queue for more than three months must be returned to the Future Queue.

Doing Queue

When a team is about to start some work they should ask themselves; 'Who knows the least about this but could learn it?' Assign the item to that person. They will also need a mentor to work with them. This attempts to mitigate knowledge hotspots. It requires a short-term investment to accommodate the learning aspect. The long-term benefits mean that now two people have that expertise and can mentor others.

The team are wholly responsible for the integrity of the items in this queue. Each item must be 'owned' by one team member. This doesn't mean that they have to do all or even any of the work on it. They will be seen as responsible by the rest of the team for ensuring that the work for that item is completed in a timely manner. Ideally two or more people will work on every item in this queue.

Situation Board

Visualising your workflow provides a valuable information radiator of the current reality. It could be a whiteboard with post-its or via a digital system. The information needs to be as up-to-date as workable. This mitigates the need for status reports and assists at Inspection sessions (explained later). It should be updated before an Inspection session, not during it.

A basic board is set up like this: (increase the Tasks row height to fit your space)

Situation Board								
To Do								
			[Item]	[Item]	[Item]			
			[Tasks]	[Tasks]	[Tasks]			
In Progress								
			[Tasks]	[Tasks]	[Tasks]			
Completed								
			[Tasks]	[Tasks]	[Tasks]			

Work progresses from the top of the board to the bottom. The key area is the 'In Progress' layer that must be around chest height for most of the team. Ideally, the top of the board should be no higher than the extended arms of the shortest person on the team. Have as many columns as you need for items in progress to match the size of your team. Place a single dot on each task each day that it is in progress to show the age of an item.

Having the status areas horizontal instead of the vertical makes it easier to see all of the work in progress. We view things primarily on the horizontal axis and it feels more natural for most of us.

A task may move through many sub statuses while it is 'In Progress'. You can either create more rows for these states or simply discuss the current state with the team when you are together.

You may also want to add other items such as:

- Team member list
- Availability calendar
- Stakeholders list
- Learning opportunities
- Blocked items

Context Board

This board provides a high-level overview of the current delivery plan. It must be kept up-to-date by the Customer Champion. They can use it to update stakeholders weekly or as often as they desire.

It could be in the format of a rolling wave where every month a column is moved off the board. Or it could be in the format showing everything without time frames.

A basic monthly board could be set up like this:

Context Board (By Quarter/Month)					
[Quarter]			**[Quarter]**		
[Month]	**[Month]**	**[Month]**	**[Month]**	**[Month]**	**[Month]**
[Items]	[Items]	[Items]	[Items]	[Items]	[Items]

Or from a cycle perspective this:

Context Board (By <Hourly/Daily/Weekly/Monthly> Cycle)					
[Cycle #]	**[Cycle #]**	**[Cycle #]**	**[Cycle #]**	**[Cycle #]**	**[Cycle #]**
[Items]	[Items]	[Items]	[Items]	[Items]	[Items]

Sessions

ICEFALL defines seven focused session types. These sessions are all optional and should only be implemented when required. You will need to experiment with all sessions at different times during the day and at various cycle lengths to find out when works best for your team.

All other sessions external to these seven can be considered overhead. Look for opportunities to absorb all external sessions into one or more of these seven focused sessions.

Start all sessions on time. Finish all sessions on time or early, every single time. You can always book another session if more time is required.

Inspection

This is a regular and short (less than 30 minutes) check-in session for the team to discuss and review how things are going, on a personal level and also regarding the workload. The team reflects on how they're feeling, and discuss the time and work remaining for their tasks, adjusting their forecasts.

Find a comfortable space where everyone can talk freely without feeling like they are interrupting others. This may be at your desks or in another part of your office. Perhaps you can even leave your workspace entirely and talk while drinking your favourite hot or cold beverage. Baking clubs are also good – please eat responsibly.

This session is also a perfect opportunity to share what has been learned recently. At the end of this session two or more people may need to continue their discussion in greater detail. They may need to involve others that are not part of the team.

Make sure to change things up now and again to keep things fresh. A regular meeting can easily slip into feeling like you're just going through the motions and it loses its' value.

Celebration

At some point during a cycle the team schedules a session with their stakeholders. To make things simpler make it the same time and length on a regular cycle. The Customer Champion celebrates the team's effort and the whole team shares the knowledge that has been uncovered since the last Celebration.

This session is an opportunity for the stakeholders to review overall progress. They can also provide support and guidance on the future direction of the team's work.

Find the person that is most at ease with talking in front of an audience and ask them to be the primary demonstrator at first. The rest of the team can learn this skill through observation and the Learning session which is explained below.

Decide as a team who should attend this session. The whole team could attend, or some team representatives, or one or more different team members each time. It might depend on the work that has recently been completed. At least one member of the team must attend to support the Customer Champion. They will also be a second pair of eyes and ears for any feedback and/or questions raised by the stakeholders.

Exploration

The team needs to regularly review items in the Future Queue to determine what their next action is. They may need to break an item further apart, get input from someone outside of the team, or create an investigation task. The Customer Champion may help with these exploration tasks.

Start at the top of the Ready Queue; check each one is still valid and immediately actionable. Double-check the order of items. Move on to the Future Queue, one item at a time, get through as many as possible depending on the length of the session but don't drag it out.

Alternatively, schedule this session ad hoc whenever an item is completed by someone in the team. You do not require the whole team for this exploration exercise, just ask for volunteers.

Forecasting

On a regular basis the whole team should get together to gauge how much work they can handle over the next few weeks. Start by determining capacity for all team members. Look at upcoming events and other responsibilities outside of the team's usual scope. Take the first item in the Ready Queue, forecast the relative size. Then ask who wants to work on it and who wants to mentor them, assign it, and move on to the next item.

This is a good opportunity to look a few months ahead. Forecast high-level targets based on recent throughput and future expectations.

Adaptation

At the heart of every good empirical method is an opportunity to experiment with new ideas. This session is generally held once every few weeks, to look back in retrospect. It can be a facilitated discussion, or based on post-its or on a digital board, or run in many other countless ways.

One simple way to facilitate the session is to ask everyone to think of things that are working well and things that are not working well. Once you have these two lists, go through the working well list first. Ensure that everyone understands the reasoning behind each item. Note if any actions are required to maintain/sustain the positive effect. Next go through the not working so well list. For this list ask the team to think of ideas or actions for what can be done differently in the future. Once you have this third list of Ideas/Actions, order it as a team. Go through each item and ensure each one has someone responsible for it. They do not have to do all or even any of the work, but they are responsible for ensuring it gets done. At this point also add an expected time frame for the action and an expected outcome. Review the list and decide whether everything can be done. If not, someone needs to volunteer to add the extra items to the Future Queue. The actionable items should all be added to the Ready Queue.

It is important that the team creates a small list of actionable items, even if the ideas list was large. This helps the team to focus on trying a few things and embedding them into their system. The experiments will incrementally build on each other every cycle.

Request an external facilitator to change things up a bit occasionally. Brief them beforehand to ensure they understand the session and how to run it.

Listening

The Customer Champion will liaise often with one or more stakeholders. How often and for how long will depend on the needs of the stakeholders and the needs of the team and the team's work. Being able to communicate well in both written and verbal forms is a critical skill for the Customer Champion. It is in facilitating these sessions that they will show their strength and value to the team on a regular basis.

Learning to listen with empathy and understanding takes considerable effort and discipline. Paraphrase what people say back to them to let them know what you have heard. This will help with clarification and understanding. Draw diagrams and pictures on a whiteboard or paper during discussions. This will help to ensure you're all talking about the same thing. The chance of learning something new is much higher when listening than when talking so these sessions are extremely valuable for the team.

Learning

This session provides for one or more team members to learn either from each other or from someone outside of the team. This could be an hour every week, or once per month perhaps. Schedule it at a regular time and place as suits the team for simplicity. The topic and format can be decided ahead of time or it might be in a more free-form 'lightning talks' type session. Any planned time for the person facilitating needs to be made visible during a Forecasting session and these items should go through the queues like everything else.

Making time to share knowledge is a long-term investment. It increases the health, happiness and capability of a team.

Push yourself outside of your comfort zone and into your learning zone as often as possible. This is the only way you can increase the size of your comfort zone.

The more time you can spend living in your learning zone the better off you will be in the long run. Pushing yourself too far too quickly may place you in your terror zone.

Comfort Zone: A location, mental state/situation where you feel safe and calm.
Learning Zone: The area outside the comfort zone with just enough anxiety and stimulus to promote a flow state and drive productivity.
Terror Zone: The area outside the learning zone where there is too much anxiety and/or stimulus and so productivity tends to decline.

Supportive Techniques

Lead Time

Lead Time is the average time difference between when an item enters the first phase of your process and when it is completed.

Cycle Time

Cycle Time is the average time it takes for each work in progress item to go through the various stages in your workflow. It is an excellent way to calculate your predictability.

Scheduling

Monday and Friday are often poor days to schedule sessions that are longer than half an hour. These days often become holidays, sick days, or generally low energy/low focus days. This is primarily due to their closeness to the weekend.

Tuesday, Wednesday and Thursday are all better days to schedule sessions.

Time-boxing

Time-boxing enables you to invest a set amount of time before sharing what you have learned. One outcome of a time-box is to determine the need for further effort and/or time investment.

Metrics

Other than Lead and Cycle Time there are two things worth measuring that are difficult to fake. One is the happiness of the customers and the other is the happiness of the team. Design metrics that enable you to track these trends.

Capacity Forecasting

Knowing when everyone will be available helps with planning and forecasting.

Implementation

These are lightweight guidelines and you do not need to put in place everything at once. You can incrementally adopt key parts over time.

Introduce items in the following stages:

Stage 1	**Stage 2**	**Stage 3**
• The roles are critical • Adaptation • Exploration • Learning • Listening • Doing Queue	• Inspection • Celebration • Situation Board • Future Queue • Ready Queue • Time-boxing	• Forecasting • Context Board • Lead & Cycle Time • Capacity Forecasting • Metrics

What's In It For Me?

As a Customer

- Value delivered early and often
- A voice in what gets created
- Higher satisfaction of what gets delivered

As a Specialist

- Mastery of your specialisation
- Working in a pro-learning, pro-experimentation environment
- Mentoring practice – both mentoring others and being mentored
- A clear purpose for your role in the team
- Clear and realistic expectations
- Supportive team members
- Sustainable work in progress
- On the job learning
- A focus on quality
- Reduced stress

As a Customer Champion

- A greater understanding of your customers
- Working with a team that makes everything transparent
- An ability to maximise the amount of work not done
- Schedule flexibility
- Responsiveness

As a Stakeholder

- A clear picture of the value being delivered on a regular basis
- Increased transparency of where things are and where they're going
- A voice in what gets created
- High engagement with the team

As a Manager

- Regular and accessible 360 degree feedback from peers
- Direct reports that are continually improving their ability
- Increased transparency of how your direct reports are feeling
- Direct reports that feel empowered

As a Business Owner

- Higher customer satisfaction
- Teams that have a clear direction
- Teams that can innovate on a regular basis
- Reduced organisational risk
- Faster return on investment
- Competitive advantage
- An environment that is more appealing for millennials
- Increased transparency of what's going on in the organisation

Final Note

Make sure that you make regular opportunities outside of your standard working environment to get to know one another. Team members learn how to predict each other's most likely reactions to any situation. Trust and predictability fosters a safer environment that can help a team move towards a flow state.

Make time to laugh together as a team, regardless of your level of success in implementing these guidelines or any other. A team that laughs together can face anything.

Keep in mind that you cannot become an expert musician by only reading about music or how to play an instrument. Reading will help, but nothing will replace practice. The same is true for these guidelines.

Thank you for making time to read these guidelines. I hope you are willing and able to experiment with them and that you find them useful.

Acknowledgements

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References

The following resources were instrumental in forming the foundation of ICEFALL.

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