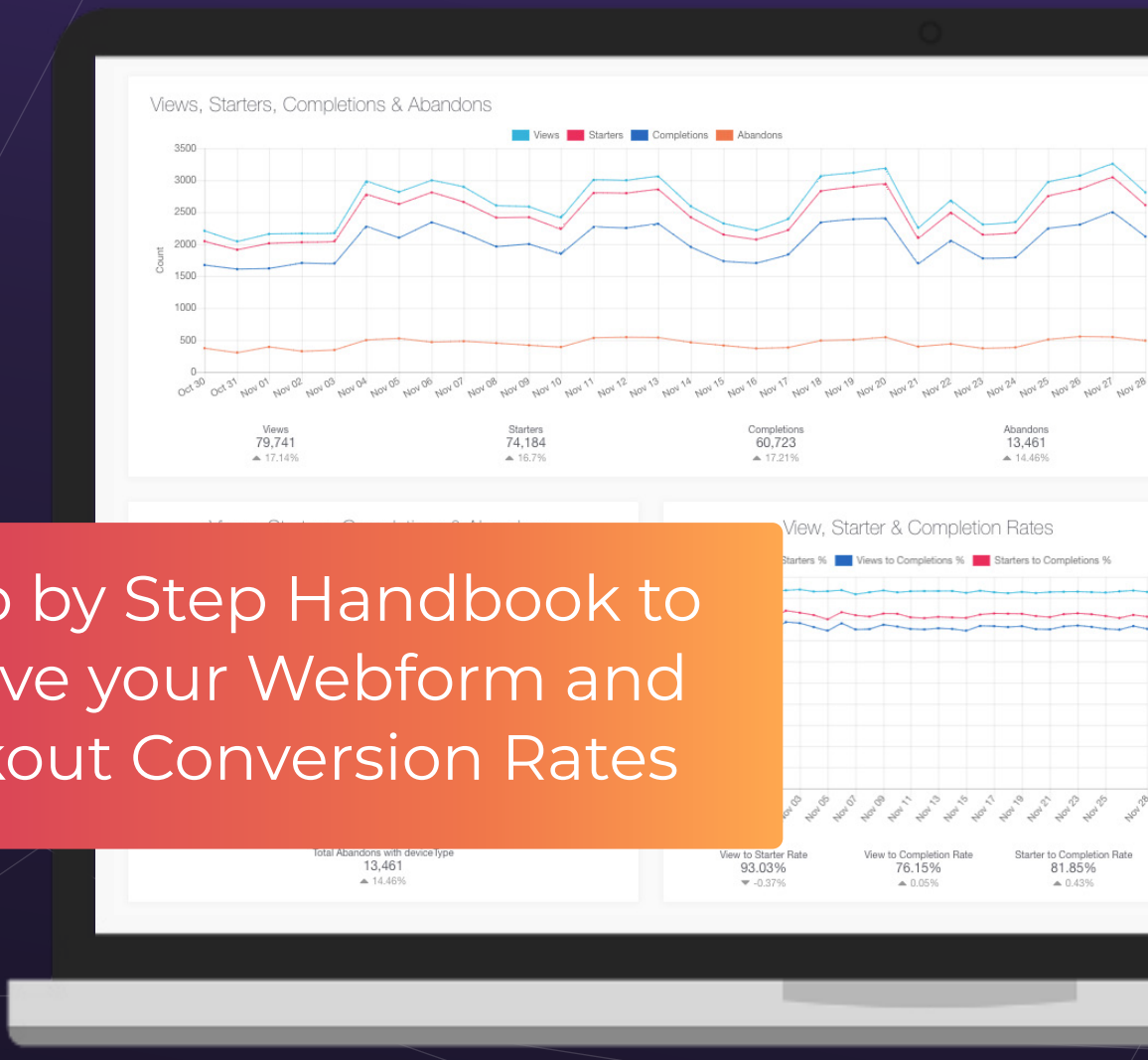
ZUKO

The *Big Guide* to

Form Optimization and Analytics



A Step by Step Handbook to Improve your Webform and Checkout Conversion Rates

Contents and Navigation

Section 1

About Zuko Analytics

Zuko's Mission: Make the web less frustrating, one form at a time

Formisimo, Zuko's parent company, was founded in 2014. At the time, it was common for webforms to be so badly designed, users would leave the site before completing them.

Realising there wasn't an analytics platform to help understand user behaviour within forms, the founders created a prototype to measure how users engaged with them. The first prototype was created with two key principles: it had to be installed within seconds, and it had to reveal data that would lead to an increase in website conversions.

From here, the Formisimo Analytics platform was born. An easy-to-use cloud-based package enabling businesses to understand why their visitors were abandoning their forms.

Zuko, our next generation Form Analytics solution was launched in 2019, providing even greater insight into when, where and why users abandon web forms.

Over the years, we've tracked millions of sessions across hundreds of thousands of forms for our clients. We know that paying attention to form fill behaviour will make a huge difference to the conversion rate of your site.

To help fulfil our mission and enable businesses to reduce frustration and friction on their sites, we've decided to share the knowledge we've accumulated in this eBook. Hopefully you will be able to pick out some nuggets of wisdom that will have a real impact on your user experience and, ultimately, your business's bottom line.

Alun Lucas
Managing Director, Zuko Analytics

Section 2

Why Form Analytics?

As Form Optimization specialists, we are often told that we occupy a very specific niche.

That's true but it is a very important niche.

Companies spend millions on driving traffic to their website but considerably less on making sure their site will convert that traffic when it arrives. The most clued up businesses are becoming wise to this and conversion rate optimization is now a hot topic. Forms are at the cutting edge of this. **Like it or not, successfully getting users to enter their details into your form or checkout will determine whether your website or eCommerce checkout is a success or failure.**

This is where specialist form analytics comes in. By identifying when, where and why your users are abandoning your web form you can make informed decisions to alter your site to improve your conversion rate and, ultimately, positively impact your business's success.

At Zuko, we see millions of pieces of form data flow through our systems every day so we know that even the best designed forms can improve their conversion performance further. Our latest benchmarking study indicated that a third of users that start a form never successfully complete it. That's a lot of room for improvement and, if you've never even considered form optimization before, it's likely that your form performs a lot worse than that.

That said, this ebook isn't about reviewing Form Analytics products. We're not going to push Zuko at you (although if you want to give us a trial we'd love to help). Our goal is to give you a practical guide to immediately improving the performance of your own form and checkout.

We know that no form is the same, so we start out with guiding principles that you should follow when undertaking a form optimization. We then delve into some common issues that cause form abandonment and how to rectify them. Finally, we share some best practice in achieving strong form design to make the user experience as frictionless as possible. We even provide a handy glossary at the end.

We've based our advice on the principles used by our consultants when they deliver their optimization projects. Therefore we're confident this guidance can be employed for pretty much any form with positive results.

Our goal is to make the web less frustrating. We want you to become your own mini-consultant, able to use our advice to make forms better for users in your own organisation and beyond.

The Importance of Form Analytics: A Case Study

If you're still doubting whether it is worth sparing the resource to improve your forms, here's a real life story that shows just how effective form analytics can be.

One of Zuko's financial clients (name withheld to protect the guilty!) was frustrated by lacklustre conversion rates for their application form. By implementing form analytics over a period of two months they were able to identify where and when users were abandoning the form and produce credible hypotheses as to why they were dropping out.

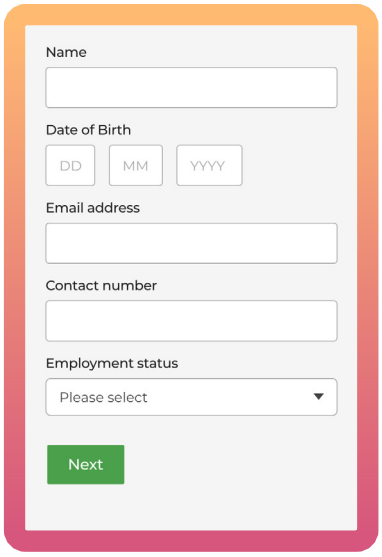
From the data, they were able to pinpoint form amendments that were likely to reduce friction in the form. Specifically, they implemented these actions:

- Changed the wording of an error message that seemed to be causing user confusion
- Added functionality that recognised misspellings of common email address providers (e.g. converting "gnail.com" to "gmail.com")
- Reduced the size of the cookie acceptance box on mobile that had been obscuring parts of the form
- Optimized the touch keyboard defaults for mobile users to make sure the right keyboard was shown at the right time
- Updated the size of tick boxes that were delivering a clumsy user experience for both desktop and mobile users

The results were monitored and the success of the project was confirmed when it was revealed that:

Completion time for the form dropped by **11%**	User corrections users fell by **37%**	Form abandonment fell from **61%** to **19%**	Overall conversion doubled from **39%** to **81%**

Admittedly, this is a cherry picked example from amongst the best form analytics implementations we have witnessed, but even the low to medium impact projects we have seen (for example, when form performance is high to start with) have shown a significant return on the time and resource invested in them.



Section 3

General Principles for Form Optimization

For anyone about to start a form optimization project, here's our advice and general best practice. Following these guidelines will help your optimization be a success and you'll also be able to prove it to your colleagues (often just as important!).

1. Measure Improvements

This is one we're very passionate about. To evaluate whether the project has been a success, you need to measure the right metrics from the get-go, While you ***could*** just apply the tips we share in this ebook and, you know what, your form would almost certainly get better, without appropriate tracking, you would never be certain. Rather than making blind changes and hoping for the best, measurement is key.

So, you need the data, but where do you get it from? We obviously have a preference ;-), but there are many Conversion Rate Optimisation products out there that could do the job. In a pinch, if you don't have any budget for software, you could use Google Analytics. But keep in mind this only gives you a topline view. It won't enable you to dig deeper to identify the problem areas within your form.

As a minimum, we recommend that your form analytics tool includes:

- The ability to track topline form performance and conversion over time so you can identify whether any changes you make are effective
- A breakdown of each field within your form so you can know which ones are driving abandonment, how long users take on each field and which ones users end up returning to
- A user flow metric or visualisation - how does the user move through the form, where do they get stuck and what may be causing them to abandon?
- Segmentation analysis - more on this later but it's crucial that you can segment your data to see whether your conclusions apply to all users or just to specific groups. You should be checking whether

your provider can segment by browser, device, traffic source, product, geography and A/B test variants as a minimum.

2. Track your ROI

In order to get the resources you need to get your optimization project underway you're going to need a business case. Fortunately, this shouldn't be too tricky. You just need to know your basic metrics on current conversion rates, plus the average value of a conversion and plug it into the equation:

Metric	Source / Calculation	Example (pre Optimization)	Example (post Optimization)
Current Form Conversion Rate	Your analytics provider	52%	65%
Average value of a conversion*	Total value of all conversions / Volume of conversions	$50	$50
Monthly Form Visitor Volume*	Your analytics provider	10,000	10,000
Monthly Conversion value (total)	Monthly volume x conversion rate x average value	$260,000	$325,000

**Assumes this is static for the purposes of illustration (in reality this will change in response to marketing and external conditions)*

In our hypothetical example above, monthly revenues through the form or checkout increased by 25% due to the optimization project. If you want to go further you can calculate a return on investment ratio. Divide the revenue improvement by the amount you spent on the project (likely a modest amount on your form analytics tool + an allowance for the time spent by individuals to run the project). Remember, though, that optimization is the gift that keeps on giving. Once you have made those adjustments you'll see a sustained improvement in conversion levels every month. Be sure to account for that in your revenue increment figure (we generally recommend basing it on the first year's uplift for simplicity).

We're often asked how much you can expect an optimization project to deliver. Which brings us nicely to our next principle....

3. Benchmark your performance

We have to be careful on this one. Every form is unique. Each has different questions, varying length, and particular visual design. Most importantly they all have disparate audiences who may react differently to varying form features. Our general advice is therefore to benchmark your form only against itself. Is it performing better after a change or not?

Having said this, “Is my conversion rate good?” is probably the next most common question we get asked by clients. We recognise there’s a dearth in data out there. In acknowledgment of this, we’ve made Zuko’s aggregated form data available to all through an open source database You can take the benchmarks shown within it and make your own mind up on how to use it and whether you use it as a benchmark for your business.

You’ll also see we’ve given you the topline conversion data for different industries and form types below. Just remember though: these data points are averages. There will be many forms performing better or worse than the metrics we share here.

> ★ ***Pro Tip*** *- Don’t get too hung up on these numbers lest you become vain or bitter. They‘re a rough guide only; each category contains a broad range of diverse forms. Start simple - compare your form’s performance this month to last month’s and take it from there.*

Average form conversion by industry

Industry	View to Completion %	Starter to Completion %
Local Government	85%	97%
Legal Service	72%	73%
Recruitment	64%	74%
Education	60%	75%
Forex Trading	57%	79%
Healthcare	56%	73%
Insurance	53%	94%
Financial Services	47%	60%
Software	47%	61%
Gambling	46%	74%
Utilities	46%	75%
Telecoms	40%	56%
Travel	34%	51%
Property	32%	52%
Data Service	31%	62%
Ecommerce	31%	51%
Misc	31%	53%
Charity	28%	70%
Media	23%	53%
Automotive	10%	18%

Source: Zuko Database

View to Completion % =
Proportion of users who view the form (i.e. arrive at the form page) who end up completing it.

Starter to Completion % =
Proportion of users who start to fill in the form that end up completing it.

Average conversion by form type

Form Purpose	View to Completion %	Starter to Completion %
Application	52%	75%
Configuration	49%	60%
Enquiry	49%	68%
Onboarding	44%	68%
Comparison	43%	58%
Registration	41%	63%
Purchase	34%	58%
Contact	9%	38%

Source: Zuko Database

4. Look at the form through fresh eyes

Sitting in our marketing bubble, it's easy to forget that our users don't look at things the same way we do. What we see as industry-standard password instructions, users see as arcane hieroglyphs aimed at confusing them. What we see as a standard pathway to completion, they see as a journey fraught with the potential to get things wrong.

> ★ ***Pro Tip*** *- When assessing the usability of your form, it's essential that you put on a fresh pair of eyes in order to identify what could be confusing the user. Summon the inner spirit of your grandmother and try to navigate your form as if you had no prior knowledge. Better still, get your grandmother to do it herself. Double better still, get a whole cohort of your target users to test out your form and help you develop hypotheses on how to improve.*

5. Break the form

Again, with our "Star Marketer" hats on, we have to be careful we don't put our own assumptions about how and why users should behave in our forms into our analysis. Just because we would take the "obvious' route through the form to a nice, simple conclusion, doesn't mean that the average user will. In fact, the opposite is usually true. You can guarantee if it's possible for someone to inadvertently tap on a button you don't want them to, or click multiple times on something or press "back" despite you telling them not to, it will happen. A lot.

When reviewing the usability of your form leave no stone unturned. Despite that voice at the back of your head saying that no-one in their right mind would submit a form with no input, you need to do it and see what happens. Breaking the form is good! If it's repeatable, it means customers will be having the same issue. Fixing it will lead to an improvement in user experience and conversion rates.

With that in mind, here's our general tips for putting your digital hardhat on and taking a sledgehammer to your form's UI.

- **Submit the form blank** (without entering anything). What message does the user get? Is it clear what they've done wrong? Are they told how to fix it?
- **Miss out certain fields and try to submit**. What happens? Are all errors shown clearly? What do the errors show? Are they easy to understand?
- **If your form is a multi-step journey, go forwards and backwards multiple times to see what happens**. Is data wiped or kept? Does a customer have to repeat information they've previously entered?
- **Leave the form for 20 minutes**. Are you timed out? What happens? How frustrating is this for users? Are they warned about this at any stage?
- **Error messages should be as helpful as possible**. Most are not (see later). Do they describe what went wrong? Do they help a user to fix it?
- **If there is a number field, try to enter letters and symbols, see what happens**. Does the form accept it and cause problems at your back end? Or does it reject the input? If so, how clear is the error message?
- **Similarly, if it is a letter / text field, try to enter numbers to see what happens**.
- **Try to put spaces and brackets in where possible**. Does this cause issues (e.g. with phone numbers)? What would the customer expectation be? Would they normally be able to use spaces?
- **Deliberately misformat emails, phone numbers, credit card numbers, etc**. Enter too few and too many characters to see how the form handles it.
- **Password fields - put too few letters, only letters, basically ignore any best practices and see what the error messages are** (if any).

- **Buttons - do the button explain clearly what they do when you click them?** Do they work all the time? Pay special attention to the navigation buttons. Can you use them to go anywhere in the form without losing your data? Do inactive buttons look inactive or do they look like you can click them and get a response?

For each of the points above, always try to channel what a user would think (your grandmother again!) What would they do in response to something unclear? Would they abandon? How much would they struggle?

6. Optimize for Mobile as well as Desktop

Most web designers and marketers work primarily on a PC or Mac so their first instinct is to optimize for the device they are currently using. If not checked, this impulse can serve you poorly.

A 21" monitor screen will provide a very different user experience than a 5" phone screen and should almost be treated as a completely different form when it comes to design and UI.

With over half of all of web traffic now coming from mobile users it's imperative you always consider mobile in your user journey.

The positive news is that Zuko's latest data shows that mobile form conversion is now approaching that of desktop so the web form community is getting the message that mobile matters.

Later, we'll provide some specific design tips to help you get the best out of the mobile environment but ahead of that, here's our most important advice (over and above what you would do for any form):

1. Prioritise legibility and responsive design

We've lost count of the amount of forms that are just ported over lock stock from desktop to mobile. Some of those forms are barely legible on the big screen so how do you think they fare on a pocket device?

2. Leverage mobile's strength

That device in your pocket has more computing power than the one used to fly astronauts to the moon. More importantly, it has a number of features that your laptop or desktop PC does not have and that can be used to expedite the customer's form journey. Most prominently, your phone has a camera / scanner that can be put to good use. We've seen hundreds of forms that have benefitted by allowing users to scan in their details (from a driving license, QR code, credit card or passport) that can save time and prevent errors. Make sure you audit your form journey to see if you can incorporate this function to improve your conversion rate (see later for more detailed advice).

3. Consider processing and 4G speeds - simplify

Mobile devices have lower processing power than desktop computers. They also (if using 4G) have slower web connections than broadband. This means they're less able to download bandwidth hungry images and animations so cut them out.

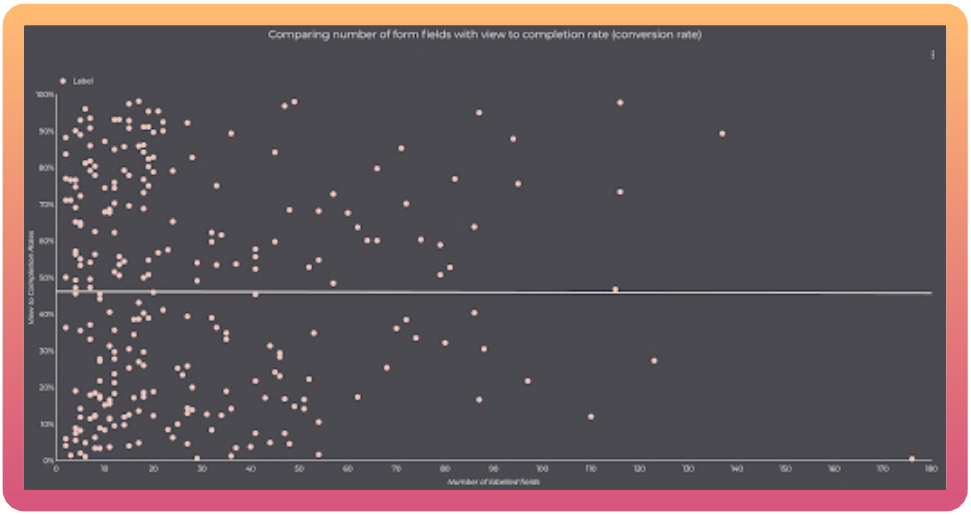
7. Length doesn't matter as much as you think

It's long been an axiom for form designers to rip out as many fields as possible to try and maximise conversion rates. The received wisdom goes that, every field you add increases friction for the user making it more likely they'll abandon.

This isn't necessarily the case. ***One recent study indicated that by reducing the number of fields from 9 to 6, conversions for one form actually fell by 14%!*** Shorter isn't always better and this is backed up by Zuko's real-world data.

Take a look at the graph below.

It plots a form's conversion rate against the number of fields it contains. The straight line is the trend across all the forms and, you know what? It's flat. This implies that, on average, the number of fields in a form makes no difference to its conversion rate.



Source: Zuko Database

Mindscrew anyone? That's the feeling you get when something you always believed to be correct is not the universal truth you thought it was.

Of course, we're not suggesting you should add extra fields to your form willy nilly and it will make no difference to conversion. We're simply saying that form length, in and of itself, doesn't impact greatly on conversion. It's more important to focus on whether the fields are appropriate. How engaging are they? How relevant are they to what the user is trying to accomplish? As ever, focus on the user and what your actual data is telling you rather than relying on outdated axioms.

8. Focus on the Submit button

If you only take one thing from reading this magnum opus it should be this: Always look at what happens when people abandon ***after*** clicking your submit button. ***This is the digital equivalent of leaving money on the table***. These users have spent the time filling out your form.

They have clicked “submit”, suggesting they’re happy to give you their valuable personal information.

Yet you still don’t make the sale. Why?

Time and time again, across the Zuko database, we see that solving this issue usually provides the biggest uplift in form performance over any changes that form owners can make.

To solve this conundrum and find out what causes valuable users to abandon, once again you need to turn to your form analytics data. By l monitoring how people move through the form and isolating those users who abandon after clicking submit, you can dig deeper and see what the problem is. Look for answers to these questions:

- **What error messages did they see after submitting?** Are these potentially misleading or, worse, likely to scare them off altogether? (financial forms are often guilty of this)
- **Which form fields did they return to?** By seeing where they went after submit you can see where your form friction is.
- **Did they return multiple times to particular parts of the form in an effort to get things “right”?** If they go back more than once to a field and still can’t get it right there is likely an issue with either the messaging or the inputs that you accept.
- **Did they go elsewhere on your site?** Are there distractions on the form that may tempt them away, even if they are just doing it to try and work out how to progress?
- **How many times did they try before giving up?** If users are trying multiple times to complete your form they must really want what it delivers. While this is positive (you have created genuine demand), multiple interactions with the same field do indicate an underlying issue.

Once you’ve identified what the issue is, you can remedy it. Smooth out the customer journey and avoid your most enthusiastic users dropping out unnecessarily in the future.

9. Identify your problem fields

One of the main advantages of a data driven approach is that it's easy to identify which fields your users have problems with. The ones that are driving abandonment rates higher than they need to be.

How do you identify which fields are causing the issue? There are various different indicators that, together, give you a good idea of where improvements can be made. The items in the above section (seeing what users do after the submit button) give you a great starting point. But also consider these data points:

Abandonment

What is the raw abandonment rate for each field? I.e. What percentage of all abandonments happen at each field. This is typically the first metric to look at but don't take it as the be-all and end-all. Occasionally this can be misleading. ***Just because a form element was the last thing to be interacted with before a user left a form does not mean that it was the crucial factor in abandonment***. The most common scenario where this occurs is if there's a high abandonment figure against the "submit" button. In these cases it's usually the error messages generated by pressing submit that drive abandonment rather than the button itself.

Field Returns

How many times do users return to the field? If that number is high then it's likely users are having trouble completing the field in the format required. For more advanced analysis, you should isolate the user journey for people who have to return to this field (using the functionality of something like Zuko's Session Explorer). This way, you'll be able to see where they are being driven from (is it due to error messages triggered by the submit button or something else)?

Again, be careful here. A high number isn't necessarily a bad thing. Some fields (think personal statements for university applications) will naturally involve a high degree of returns - although if your basic fields such as

name, email or phone number have field returns averaging 2 or more you should definitely be concerned.

> ★ ***Pro tip*** *- don't focus on the* ***absolute*** *figure for field returns. Instead, look at the difference in the stats between completed sessions and abandoned sessions. A significant difference between these figures indicates this particular field is likely contributing to abandonments.*

This example Zuko screenshot shows a field (Gross Income) with a large difference in returns between abandoned and completed sessions. This is a clear indicator of friction in this field.

	Number of Sessions Interacted			% Sessions Returned			Mean Returns to Field		
Label	All	Abandoned	Completed	All	Abandoned	Completed	All	Abandoned	Completed
Employment Status	244,680	51,505	193,175	12.01%	13.76%	11.54%	1.17	1.23	1.14
Mobile number (tel)	241,006	49,105	191,901	28.87%	28.7%	28.92%	1.42	1.55	1.39
Gross Income (number)	234,298	40,046	194,252	30.93%	34.19%	30.25%	1.62	1.99	1.53
Residential Status (smart search)	231,039	37,940	193,099	5.09%	7.55%	4.6%	1.14	1.21	1.11
Dependents value	230,957	37,878	193,079	7.11%	9.67%	6.61%	1.14	1.22	1.11
Address Search - Postcode	230,203	37,898	192,305	22.88%	24.08%	22.64%	1.36	1.54	1.33

Time Taken

How long are users taking to fill in each field? Generally, the longer the time taken, the more problematic the field is. However, at the risk of sounding like a broken record (pre-21st century reference for our younger readers there), this isn't an absolute rule. Some fields just take longer to complete than others (see below for Zuko's time taken benchmarks for common fields). It's the difference in the length of time taken in abandoned and completed sessions that is important. If users spend significantly more time on a field in abandoned sessions than they are in completed sessions, there is a strong likelihood that the field is causing them issues. If the situation is reversed (users taking longer in completed sessions), this is an indicator that the user probably isn't interested in the field or it looks too daunting to even start it.

Field	Average Time Spent (s)
Name	4.6
Address (first line)	6.9
Postcode / Zipcode	5.1
Mobile Number	6
Email Address	14.5
Password	13.3

Source: Zuko Database

10. Use the data to remedy your problem fields

If you've followed the steps in sections 9 & 10 using your form analytics data, you should now have a good idea which fields are an issue and need to be "fixed".

This should be done through a "test and refine" approach (more on that later) but first you need to generate hypotheses to test. Use the data to create your theory on what is causing the user friction.

If you've been looking at the form through your users' eyes and fully understand what the data is telling you, you should be able to have a good go at creating these hypotheses. However, as a starter, we've included below some of the more common issues and the remedies that we frequently see used to fix them.

Abandons

A large volume of abandonment on a field is never a good thing. Potential reasons and remedies include:

i. **The customer is unwilling to provide the information that your field is asking for in order to progress in the form journey.**

This may include sensitive or overly personal data that the customer decides is not worth the risk of providing.

> 🪄 ***Potential remedy*** *- remove this field, or explain why you're asking for this data with some microcopy or help text.*

ii. The field requires data the customer is unable to provide right now.

Commonly, this includes complex information such as Social Security numbers, credit card info, or tax IDs as well as expiry dates for current products (e.g. insurance). Your user may not have been aware that they were going to need this information so didn't have it to hand and decided to leave. They may return at a later time but it's best not to rely on this. They could just as easily be tempted away by your competitors in the meantime.

> 🪄 ***Potential remedy*** - make it clear at the start of the form journey what information will be required. If the relevant data is available on national databases (such as this one for UK car owners), then provide a link for your users to follow. If possible, allow the user to make some submission/ commitment without this info, and then get them to provide it later on.

iii. The user wants to provide the information required but is unable to, as your form is broken.

This is a big, completely unnecessary bug that should be easily solvable. If your field is asking for relatively simple information that's not overly sensitive yet still has a high level of abandonment, it could be there's a breakage.

> 🪄 ***Potential remedy*** *- you need to involve your developers in the solution. However, the easiest way to diagnose the bug is to open the form yourself and interact with the field in question. Try out different data formats and run tests across multiple device and browser types. If you still can't work out what's wrong with the field, try submitting the entire form. What happens?*

iv. A field in your form is visibly complex or intimidating. So much so, the user doesn't want to attempt it.

This may create a large abandonment rate for the preceding field. As an example, if you ask for simple information such as name, then follow with a large field asking the user to write 500 words on why they should be accepted into your exclusive club, you should expect an artificially inflated abandonment figure for the "Name" field.

> 🪄 ***Potential remedy*** *- make your complex field less intimidating. Let the user save and come back easily or make it clear from the start what's required so the they are prepared.*

v. Coupon or voucher code fields are driving users away.

It's a common phenomena for coupon code fields in ecommerce checkouts to actually increase, rather than reduce abandonment. The mere presence of a field gets the user excited about the potential for reductions so leaves the site to try and find one. In the process they are tempted away by a better discount from a competitor or, worse still, come back and rage quit after their hard found coupon code is callously rejected by your checkout.

> 🪄 ***Potential remedy*** *- reduce the visibility of the discount code field, or make it only accessible to those that have been referred from affiliate sites.*

Field Returns

For some fields you may expect a large proportion of field returns. For example, forms that generate quotes for particular products (travel, insurance, etc) will often see high returns as users go back and "tweak" fields to check the impact on the final price.

However, there are some fields where users shouldn't have to keep returning. If you see high returns for name, address, email, phone number or password, you know something's wrong as users generally get them right the first time around.

In Zuko's experience, if these fields have high returns it's usually due to field validation restrictions. You ask for information, users try to answer, but your form rejects the way in which they provide it. Occasionally, this will be because the user makes a genuine mistake but a high number of returns may indicate one of the following:

- ***Password*** - your requirements are too restrictive, or not stated clearly enough (see later for more advice on this issue).
- ***Phone number*** - are you forcing the user to add spaces, brackets, and international dialing codes? Or are you preventing them from doing so? Allow users to enter a phone number how they want to, and do the backend work to reformat this to your requirements.
- ***Zipcode / Postcode*** - As with phone number fields, are you requiring them or blocking them from including certain elements they would expect (e.g. spaces, letters as well as digits, etc). Make it as easy for them to submit the information in as many relevant formats as possible.

- ***Email*** - do you block some unusual domain names? Some forms forbid email addresses ending in things like 'example.business' or 'example.company'. You should be accepting these, as they are valid email addresses.

Time Taken

The time spent in a field tends to be correlated with returns (high returns tend to drive a higher time spent) so should be looked at in conjunction with that data. Look at the difference between abandoned and completed sessions as noted previously.

> ★ ***Pro Tip*** *- In addition to looking at the relative data, you should also pay attention to absolutes. If the data for a field takes you by surprise in how long users are taking to complete it (high or low), compared to how long you expect (ideally based on your pre-testing), there may be an underlying problem that needs to be fixed. This could be technical (users can't submit so are taking longer in the field) or UI based (are the instructions clear?).*

11. Test and refine

Once you've identified and fixed the biggest issues with your form, there's a tendency to sit back and move onto the next item in your intray. Problem solved, right?

Wrong. ***The thing that separates the best performing forms in Zuko's database versus the merely average, is a willingness to commit to continual improvement***. A half percent improvement here, a one percent decrease in abandonment there, compounds over time to make significant impacts on your business's bottom line.

This essentially means testing, either A/B (testing one form variant against another with one variable changed) or multivariate (testing multiple

variable changes at the same time). These techniques show similar user groups different versions of your form and see what the result is on behaviour. Is conversion up or down? Which fields were positively or negatively impacted? By testing a small number of changes at a time you can build up learnings on what works and what doesn't.

> ★ ***Pro Tip*** *- Trial these changes in your A/B tests to see whether they make a difference:*
>
> - Remove non-essential boxes or move them to later in the form.
> - Change the way you ask for information. Perhaps "Email" rather than "Work Email", "Cell Phone" rather than "Work Phone".
> - Add microcopy to reassure the user what will be done with their data.

You may want to use a specialist A/B testing tool to get the most out of this technique. Google Optimize, Optimizely and Convert.com are among the most popular of these.

> ★ ***Pro Tip*** *- In order to gain the most from testing, your form analytics solution should integrate with your A/B testing tool. This facilitates a deeper dive into the data. Be sure to check it does before committing to a subscription.*

12. Segment your analysis

We've hopefully given you some sound advice that's already helped you improve your form conversion. Or even gotten you some internal fame within the business (maybe even a nice new work chair as a thank you from the CEO!). To truly level up and become a form optimization ninja you need to heed this final point.

Segment, segment and segment again.

This is an article of faith for McKinsey consultants (and their competitors) and is equally important for you too. All the topline data you view about your form is an aggregate or average. That's great if you want a general overview and it will still surface your biggest issues. If you want a proper deep dive, however, you need to segment your data to find out what's going on within different user groups. It's very common that different groups make their way through your form in different ways and respond contrastingly to Calls to Action.

Some of the key segmentations you will want to run are:

- ***Device*** - Forms are rendered differently on mobile devices and users interact differently. You need to segment by device to discover if your mobile, desktop or tablet users are more likely to abandon at specific points.
- ***Browser*** - Whilst developers try to make the form render successfully across all browsers, we often see some slip through the net. You don't want Firefox (or Safari, or Edge) to have a difficult time with your form just because of your browser choice. Segmenting by browser lets you identify, and rectify, this.
- ***Geography*** - Do users from different countries behave differently in-form? Perhaps you should serve them a version adapted to their location.
- ***Traffic Source*** - We have consistently found across our user base that organic traffic behaves very differently to paid-for traffic (they tend to convert at much higher rates). By segmenting traffic source (ideally down to exact referrer) you can determine whether

a channel is working for you and whether you need to build specific forms or make some subtle changes for different sources.

- ***Demographics*** - Are user's personal characteristics important enough for you to track? Pull them through into your analytics provider so you can segment by them. You can then see clearly how each of your segments behave.
- ***Product*** - Do users select a product on your form? Retrospectively apply that segmentation to understand the hurdles for each product group and whether you need to adapt the journey for some of them to improve conversion.

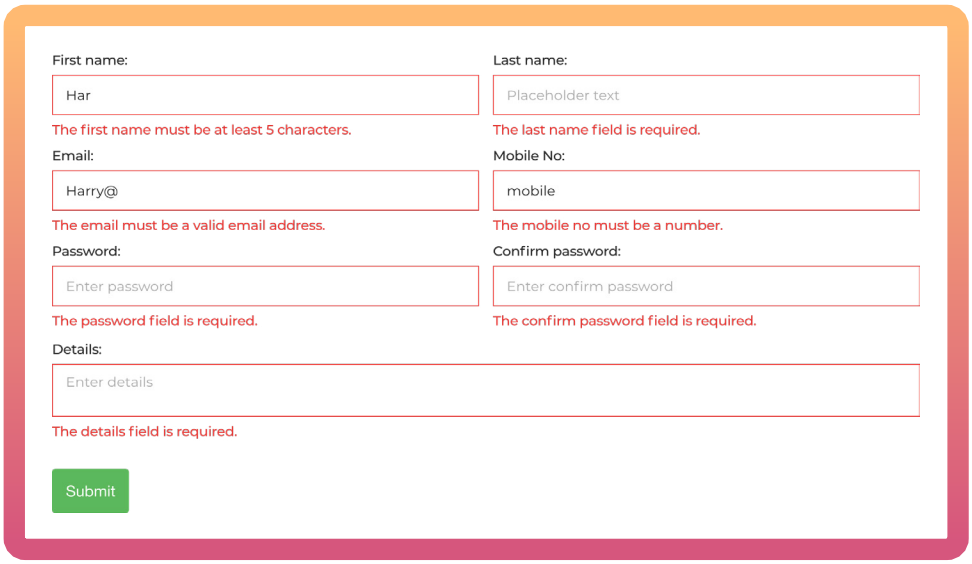
Section 4

Common Issues and High Impact Tips

We now move on from generalised advice to consider the specifics. As form optimization specialists, we see the same issues and questions come up time and time again. This chapter sheds light on some of the most common problems put to us. We'll also share our best tips to help you maximise form conversion.

1. Inline Validation

Inline validation is a technology that provides the user with instant feedback as they enter information into a form. Think of the password fields that tell you whether you've fulfilled the criteria as you type in the characters.



High intensity inline validation

If you are interested in the technicalities behind this you can learn more from our specialist article on inline validation. In summary, this is one of the most powerful techniques you can use to improve form conversion. A classic study on the topic found that the use of inline validation delivered:

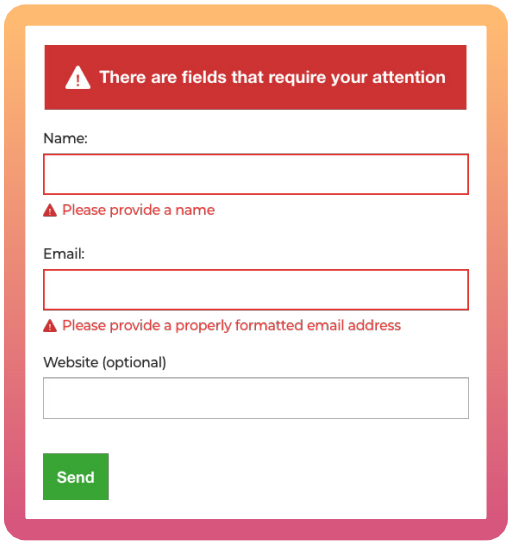
22%	22%	31%	42%
increase in conversion rates	decrease in errors made	increase in satisfaction rating	decrease in completion time

Versus equivalent forms with no inline validation

There are various ways to implement inline validation but our best practice principles are:

i. Only trigger when appropriate

We've all been on forms that start out as a sea of red, inviting you to complete them if you want to remove all the pre-loaded error messages. Not a great user experience. You should only use inline validation when it aides a positive user experience and increases the likelihood of completion.



Whoa cowboy. Hold off the error messaging until they've typed something!

Generally, you want to use inline validation in the following scenarios:

- If the data has to be provided in a particular format, or with particular characters (think password, email address, etc)
- To validate an email address or user name (i.e. confirm whether it is already registered with your site)
- If a user skips over a required field (i.e. to remind them immediately that it must be completed before they head on through the rest of the form)

ii. Validate at the right time

The main benefit of inline validation is that you can provide user feedback in real time. That doesn't mean that you can just splurt out all the feedback continuously if you want to maintain an optimal user experience. There are many opinions on when it's best to provide feedback. Our general advice is to provide feedback once the field has been completed (i.e. immediately after they move to the next field). This avoids any distractions while users enter data.

This is backed up by the aforementioned study which found users completed a form 7 - 10 seconds quicker when validation was shown after completion rather than during. The only exception we would make to this is for password fields with significant stipulations (special characters, etc).

Here, it can be beneficial to let the user know when they have fulfilled the requirements. Even in this case it's still advisable to allow a short time lag before validation, so the user is not prematurely annoyed by error messages.

iii. Position the message optimally

You'd think that it was intuitive to keep the validation message as close to the field as possible. Not according to some of the forms we have seen. If the validation message is at the top or bottom of the form, it often gets missed.

Typically, you should place the message immediately to the right of the input field (for a simple tick mechanism) or immediately below (if you need to impart more information about the nature of the error). There is a mini-trend to include the message within the error box but avoid this if you can - this usually doesn't render well across all devices / browsers and can look odd or unprofessional.

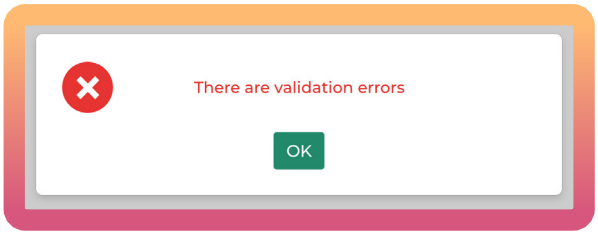
iv. Keep green on the screen

Once users have successfully completed a field, you'll want to keep that green tick (or equivalent) on there. Studies have shown that fading the success messages causes nervous users to worry the field has since become invalid.. Slow typists sometimes miss the message altogether as they focus on their keyboard rather than the screen.

2. Let error messages work for you

Computer says no....

We've all had the big red X slap us in the face when we've entered a field incorrectly. It's not nice - it reminds us of our worst days at school! Worse still is when the big X appears with no instructions on how to fix the problem, leaving us to try and work it out ourselves. Usually followed by rage-quitting. It's innate - error messages drive us to produce cortisol which makes us stressed and more likely to abandon our form.



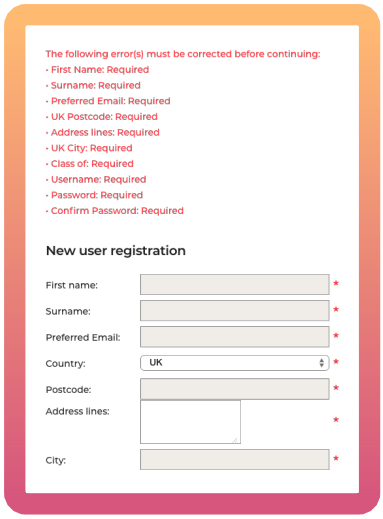
Not Helpful!

We've written about error messages in detail previously. The important thing to remember is that they are not the enemy. Done well, they can be the user's friend, gently guiding them to the desired outcome with minimum pain.

i. Indicate the error message clearly

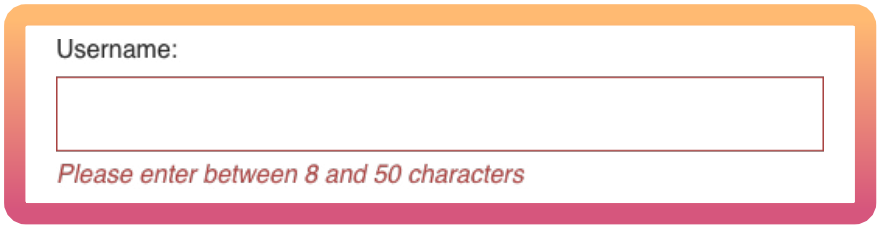
If a mistake has been made you need to let the user know this unambiguously. Be clear where that error has been made. You can do this by:

- Highlighting the offending field, ideally with an outline around the input. Use a strong, impactful colour (there's a reason teachers use red!)
- Using visual cues or icons to draw attention to the mistake (crosses and arrows are good)
- Make sure the error message is next to the appropriate field. Don't make the user have to memorise the error by putting the message at the top or bottom of the form and leaving them no option but to scroll to fix it.



Better to have the error messages next to the relevant fields

This is a better example of how to do things: the field itself is highlighted in red and there's a clear explanation on what the issue is.



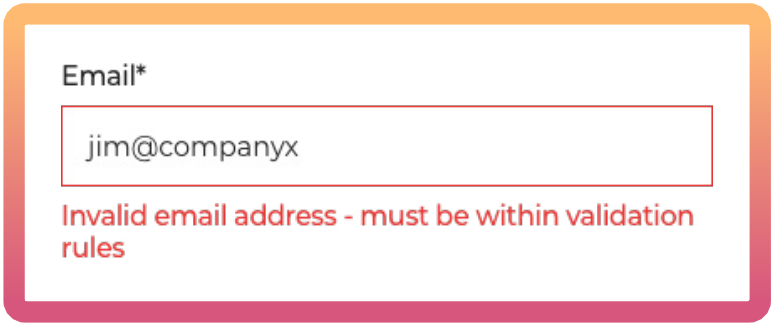
ii. Be clear and helpful

A good error message should enable a user to quickly understand, read and fix the issue. Use the language of a good customer support representative. Give guidance, don't just state there's been an error.

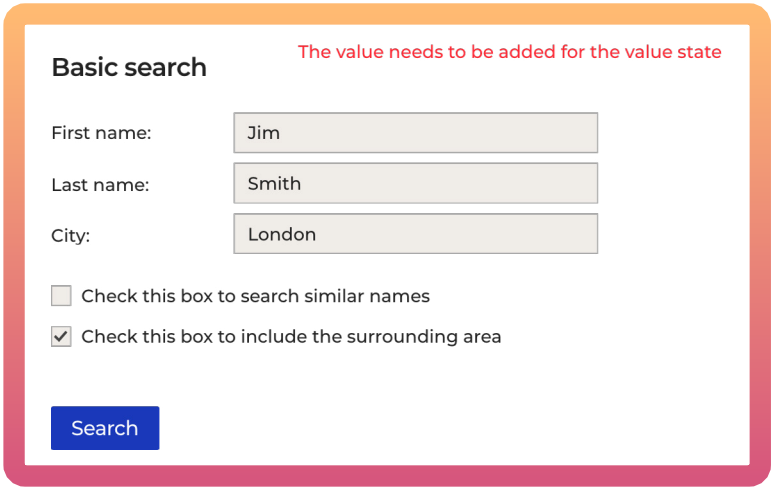
Avoid:

- Tech language and jargon - most users are not qualified developers.
- Forcing the user to adapt to your setup - if something is wrong tell them why so they can fix it. They don't know what Error356089 is...

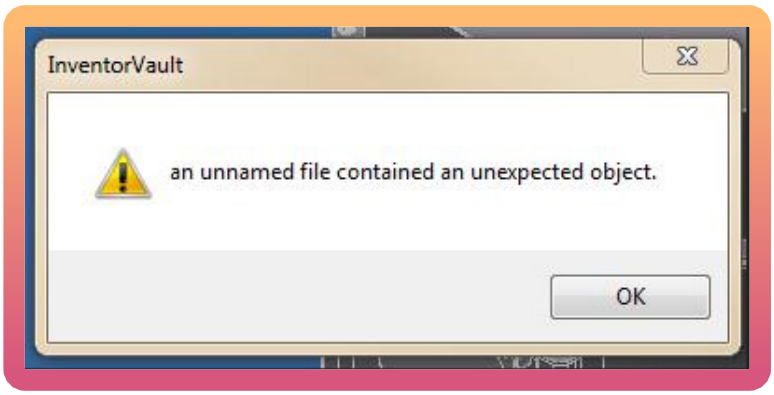
Some examples to avoid are below.



What are the rules?

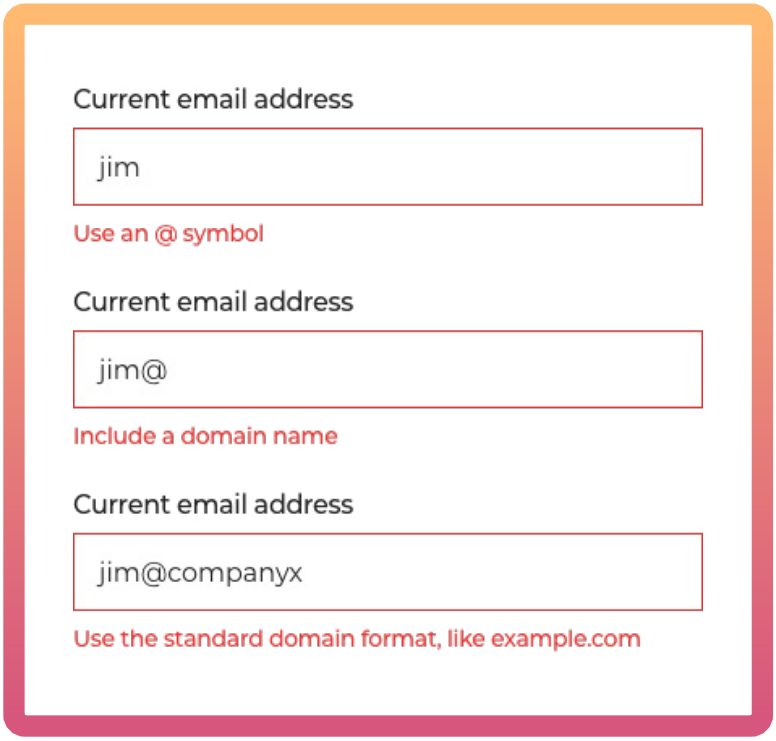


Which value and what is a value state?



WTF?

A more helpful example is shown below, giving the user specific advice on how to solve the error.



iii. Never blame the user

There's an old maxim; "If you don't understand what I'm saying, it's not your fault for not understanding me, it's my fault for not explaining things well enough." This applies to forms. Never be tempted to imply the user has caused the error (even if they genuinely have!) as it won't end well for you.

> ★ ***Pro Tip*** *- Use passive language rather than accusatory:*
>
Bad example	***Good example***
• *You have entered an incorrect login or password*	• *Your login and password do not match*
• *You didn't enter a name*	• *Please enter your name*
• *Your Zip Code is incorrect*	• *Please enter a valid Zipcode for your region*

iv. Prevention is better than cure

You know what's better than writing good error messages? Never having to display those messages in the first place because you've done such a good job with your form.

How do you do that? Our top tips are:

- Inline validation (getting bored of us saying this yet?)
- Make the form labels as clear as possible (e.g. "Delivery Address" Vs "Current Address")
- Be more flexible in your data format (more on this later)
- Use microcopy (full section on this later)
- Be clear which fields are optional and which are compulsory
- Use smart defaults. Don't let users pick dates in the past, choose a return date before a departure, or select products that their age prohibits them from purchasing

3. Get Passwords Right

Anyway you look at it, passwords are a pain. Either you make them so difficult, the user forgets them. Or you make them so simple there's a risk they could be easily cracked and your security compromised.

Zuko has done a lot of research on passwords. ***On average, over 50% of users return to the password field at least once. Even the best performing forms have a figure of 30% returners so the potential for friction and dropouts is immense.***

That said, there are ways to make things easier for both the form user and you.

i. Minimise stipulations

We get the need for strong passwords. No-one wants a user base with "123456" as the only barrier between a hacker and your back end. However, overly strict requirements guarantee a horrible user experience as they return to your site and can't get back in. You'll also get the "FFS" factor when users' first choice passwords are rejected for want of a special character. While this rarely causes abandonment in itself, you don't want a frustrated customer just before they're ready to click the submit button.

You don't have to go too far with this. While you do need some requirements, even Microsoft has advised against overly complex passwords.

The UK's Information Commission Office offers some useful guidelines that you won't go too far wrong if you follow:

- You should have a suitable minimum password length
- (Microsoft recommend 8 characters. Any more than 10 is unnecessary), but there is no need for a maximum length. If the user wants to go with "SuperCalifragilisticExpialidocious!129" then let them. We're assuming that you are using a reputable encryption algorithm (if you aren't then please do) to hash your passwords, so as long as you have an appropriate minimum length, longer passwords

should not cause a problem. If you must set a maximum length (for example if the developers added one without thinking and now you're stuck with it), then tell users this upfront.

- Special characters should not be compulsory. Password length is more important than complexity. However, you should let the user enter them if they want to.
- Blacklist weak passwords. This is how you can block the "Pa$$word" and "12345"'s from your database. It's not hard to pick up these lists commercially and you should update them every year. When you implement this, make sure you explain to the users why they can't use that password if you reject their input for this reason.

ii. Be kind with your error messages

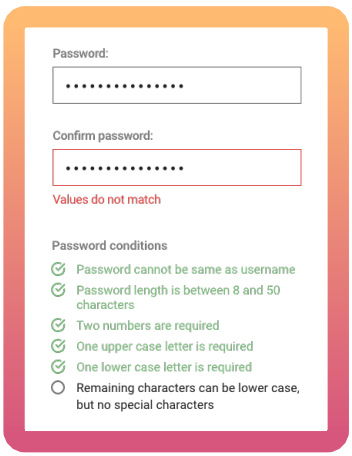
We've already covered this off in the previous section so won't labour the point here.

iii. Use inline validation

Again, this is a repeat but we're going to keep banging that drum until you take notice. An average 22% increase in completions should get you moving on this.

iv. Don't use confirm password

Don't do it. We get that you don't want users to inadvertently forget their password. But we know they probably will anyway. Why add extra frustration at the point of commitment when a forgotten password tool can help them later?



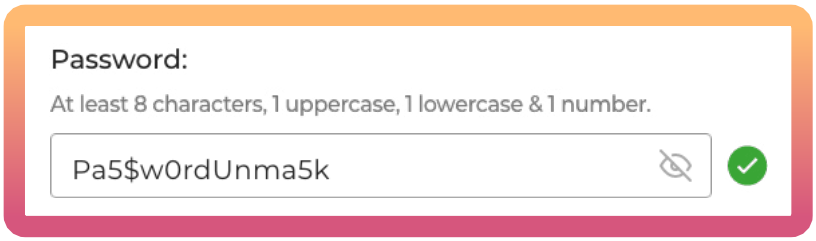
We learnt this from bitter experience. We used to have a confirm password on the Formisimo (our previous product) sign-up page. We removed it. Conversions went up 33% and we've never gone back. We've never had mass password forgetfulness because of it either.

v. Allow unmasking

"If it wasn't for you meddling conversion rate optimizers, I'd have gotten away with it"

Unmasking shouldn't only be for Scooby Doo villains.

A masked password (with an option to unmask)



The same password with the mask off

If you want the customer to have the best experience, allow them to unmask the password field. They are less likely to mess up the field if they can see what they're typing.

Companies often mask passwords out of a misguided sense of security. But people don't complete forms in crowded internet cafes anymore. In fact, research by Dr Jakob Nielsen suggests that masking actually makes passwords less safe and users less likely to become customers:

- The more uncertain users feel about typing passwords, the more likely they are to employ overly simple passwords or copy-paste passwords from a file on their computer. Both behaviors decrease security.

- Users make more errors when they can't see what they're typing. They feel less confident. This degradation of the user experience means people are more likely to give up or never log into your site at all, leading to lost business. (Or at the very least, cost you more in support calls).

Rip that mask off Velma...

4. Accept all valid formats

Phone Numbers. Postcodes. Card Numbers.

These should be uncontroversial fields that users fly through with no problems. People know their own Zipcode, mobile number and can pull their card out from their purse to enter the number correctly can't they?

You'd think so but in reality, these fields cause more friction than you'd expect. Sometimes enough for the user to quit the form altogether and go to a competitor.

The cause of this trouble is usually down to a mismatch between the format you want the user to input and the format they expect to enter:

- Should you use the international dialling code (+XX) for your phone number? Should you drop the 0 from the start?
- What happens if you include a space in your phone number or postcode?
- Should the date of birth be "DD MM YY", "YY DD MM" or some other combination? Do you need to include the first two digits of the year or not?
- Is there a maximum length for a text field?
- When entering monetary amounts, should you enter the comma or period (different countries have different conventions for this)?
- Should I add spaces in my credit card number (like it appears on the card)?

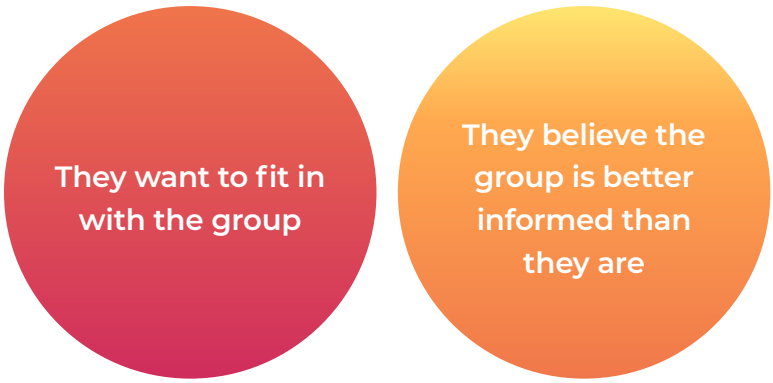
All of this leads to unnecessary headaches. You may have a backend system that needs a certain format to be input but that shouldn't be your customer's issue. You need to stop it.

> ★ ***Pro Tip*** - *The most successful forms accept inputs in all valid formats, doing the hard work themselves via a simple reformat at the backend. This meets the requirements of your system whilst prioritising the needs of the user.*

5. Leverage the power of social proof

While we are data experts at Zuko, we do sometimes like to dip into the school of psychology. Understanding what makes people tick can be a valuable tool in nudging them through your form.

The choice to follow the herd is deeply ingrained in all but the most contrary among us. A classic study by Solomon Asche demonstrated that people are more likely to conform to the group decision, even if that decision is "wrong". When Asch asked the participants why they conformed, he found that people follow social proof for two reasons:



There are various ways that you can harness this instinct for conformity to improve your webform / checkout conversion. The most common are outlined below.

i. Customer testimonials

While semi-anonymous customer comments can be effective (shoutout to "JB" from Boston), the more information you can provide about your champion, the more credible it will be. Name is crucial but if you can get location (B2C) or company + role (B2B) you're off to a good start.

The content needs to be detailed enough to be relevant. "Product X is great", won't do much for you. "Product X really met my need for Y and the support team delivered upon every one of their promises" will subconsciously put the form user into the happy customer's shoes and make them feel more positive about the product they are about to buy

For extra impact, if you can persuade customers to give you a video testimonial (although don't put this in the form - too much distraction) so much the better.

ii. Aggregated review scores

If you have independently verified positive review scores then use them. Placing them near the end of your checkout, ideally with glowing customer comments or testimonials will drive sales. A study by iPerceptions, an analytics provider indicated that 63% of people are more likely to purchase from a site that has user reviews. There are plenty of sites out there to help you harvest reviews. Google, Yelp, TrustPilot, G2 and Feefo are some of the most popular. Select your partner based on whether you are a B2B or B2C provider and get a feel for how easily they will integrate with your technology.

iii. Trust Icons + Logos

It's amazing what the power of brands can do. If you're a B2B service or product make sure that your most famous customer logos are front and centre of the buying experience. As the old saying goes, "No-one ever got fired for buying IBM". While that statement needs updating, the sentiment is still valid. Herd mentality pushes us to follow the biggest and baddest - why would Coca Cola buy a service that is bad?

In both B2B and B2C spheres, don't be shy about pushing your media coverage. A set of logos of the media outlets you've featured on will add to your credibility.

Finally, if you've got awards, flaunt them!

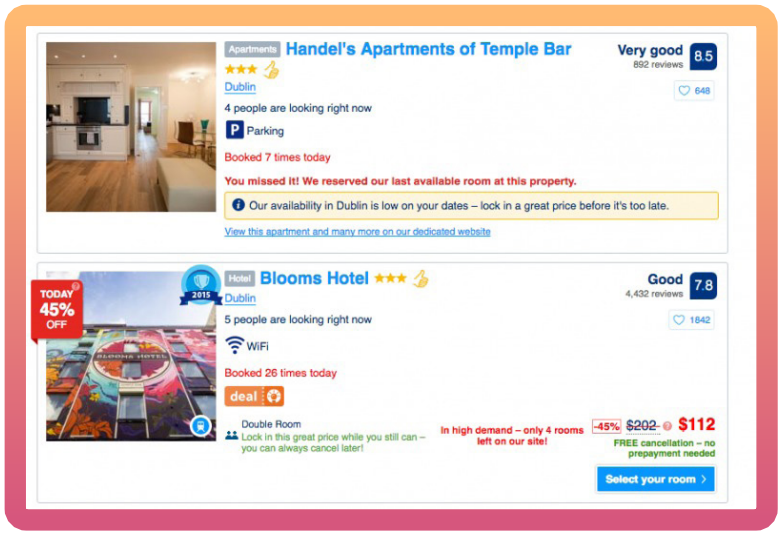
(caveat here - make sure they are credible too. No-one outside of the midwest is convinced by that Iowa Chambers of Commerce honourable mention).

iv. Case Studies

Often the gold standard in B2B social proof. Case studies incorporate in-depth data driven outcomes for a trusted client. If you can pull one of those together alongside a positive quote, do so immediately.

v. Customer numbers

We've all experienced the prompt on travel sites "21 people booked this hotel today" while we're enjoying our browse. This prompt is a less subtle form of social proof but one that's effective. You don't have to go quite this far if it's not right for your business. Just stating an impressive number of customers, will work just as well.



Booking.com are serial exploiters of the social proof technique - how many examples can you spot?

6. Make use of Microcopy

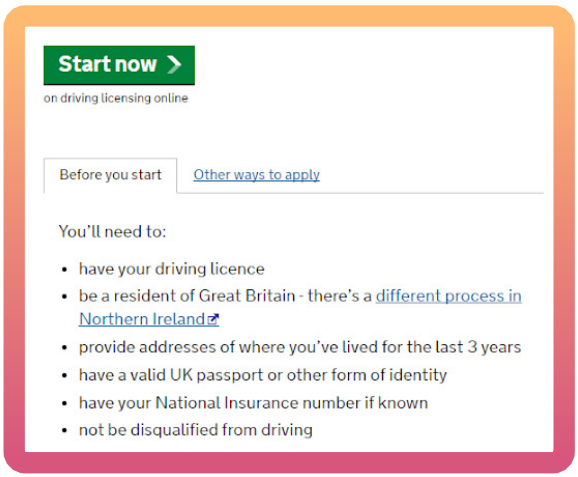
Microcopy is the small pieces of written content that guide users through your online form. It cuts friction from the form experience and, done well, can make a massive difference to your abandonment rates.

The primary categories where you should include microcopy are:

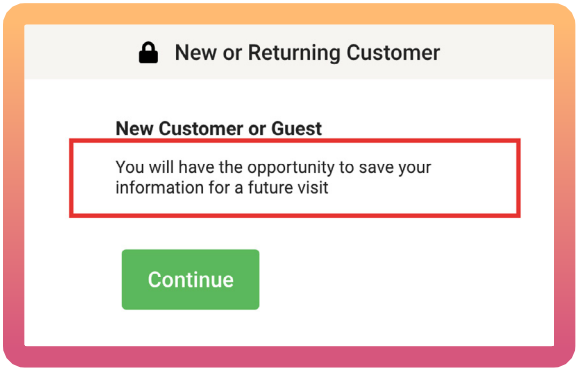
i. Giving users a heads up

It's always good practice to let users know what to expect and what is expected of them. Much better than springing it on them after they've invested time in the form.

For example, you could prep them on what documents they will need later on, like in this from the UK driving license authority:



Or a simple prompt to let users know they have the option to set up a full account later, even if they start as a guest.

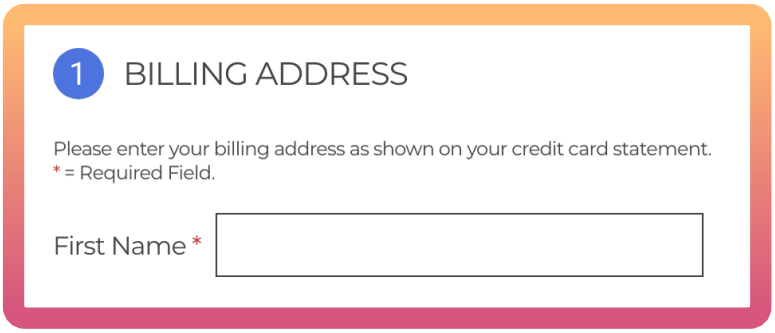


ii. Being specific on the input needed

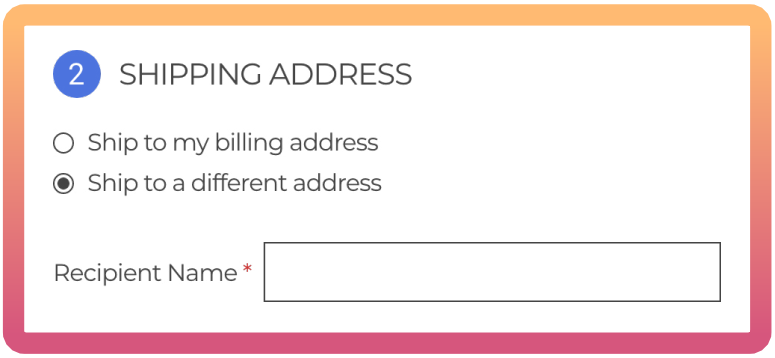
What's the difference between, "Address", "Current Address", "Delivery Address" and' Residence Address"? If you believe there's no difference then you're probably causing unnecessary confusion on your form. Use microcopy to be specific about what is necessary.

For instance:

"....Billing address as shown on your credit card statement" to be clear what exactly is needed.



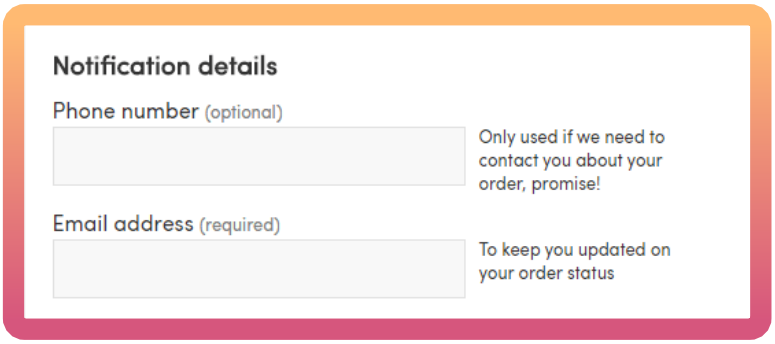
Recipient name rather than just "Name" to be clear in the case this is a gift for someone else.



iii. Explaining why

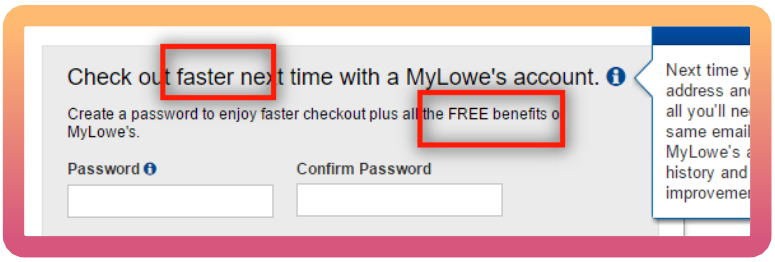
A study by the Baymard Institute, indicated that customers grew suspicious if asked for what they perceive to be unnecessary personal information (especially phone numbers). Conversely, when forms explained why they needed the information, users were much more forgiving.

Firebox.com does this well - explaining, reassuring and bringing the brand tone of voice to life, all in one brief line.



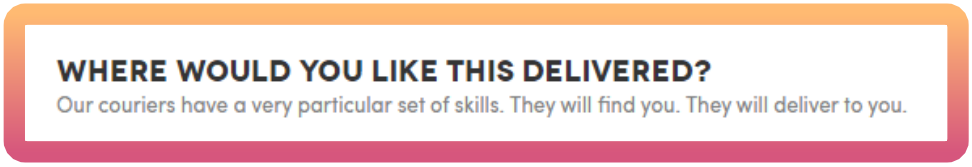
iv. Persuading

Microcopy is best put to use when it nudges users towards your desired outcome. This example from Lowes asks the customer to sign-up for an account and describes the tangible benefits of doing so (faster checkout, free benefits).



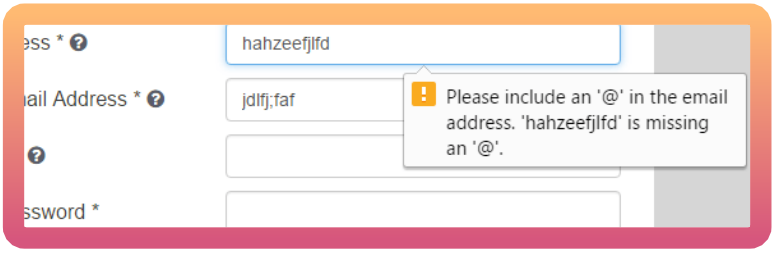
v. Reinforce your brand

Many websites take the opportunity to inject a bit of brand levity into an otherwise dry message like this “Taken” inspired piece of microcopy from Firebox again. Whilst this may not have a direct impact on your conversion rate, it certainly improves your user experience.



vi. Error messages

We've covered this previously so we won't dwell on it but, needless to say, this may be the most important use of microcopy. Make sure you follow the principles outlined above - be clear, helpful and unambiguous like this example from Ticketsellers.



7. Progress Indicators

It turns out that a progress bar is one of the most effective psychological nudges in preventing abandonment during the more long and complicated forms out there. The power stems from harnessing three psychological phenomena:

The stress of incomplet...

Gestalt's law of closure implies that humans are innately predisposed to complete things. Lack of 'completeness' causes us stress. This is one of the reasons that video games with progress bars are so addictive. Players refuse to stop until they've hit 100%. This applies to forms too. The inner gamer in us won't let us stop until the bar is complete!

Operant conditioning.

We've been conditioned to seek the positive reinforcement we gain on completion of a task; form filled in and ticked off the list. We don't like to see an unfinished task, so we press on for sake of completeness.

We find completeness intrinsically rewarding.

Neuroscience from MIT (Dr Hugo Liu) has backed this up. He found that the brain releases large quantities of endorphins when we successfully complete a complex task.

While you can consult our blog on progress indicators for an in-depth overview, our key advice to maximise their impact is:

i. Make them proportional to the journey

We've all used those forms with dodgy progress indicators. The ones that tell you that you're 80% of the way there but you soon realise you are only 20%. Don't be that form. That sort of hackery may work momentarily but will erode the trust of your users in the longer term. Ensure that whatever type of progress indicator you use (sections, numbered stages or percentage), it aids a positive experience.

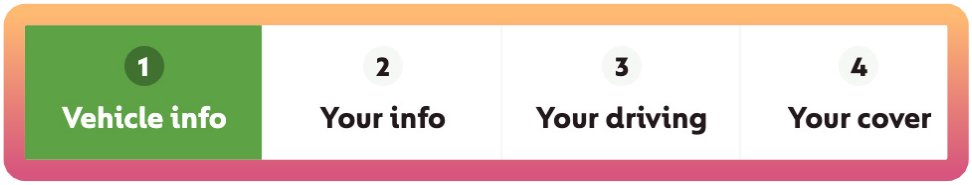
ii. Clearly label each step

Manage user expectations throughout the journey. Each stage should be labelled clearly. Allow the user to understand exactly what they can expect and what they are likely to be asked. Generic labels like "Stage 4" or a naked percentage figure may help manage expectations relating to the overall length. But they don't tell the user exactly what's ahead.

This example from Halifax bank doesn't contain section titles or a bar. Their user knows they have 6 stages to go through but nothing more.

iii. Let the user navigate

One of the advantages of a progress bar with specified stages (instead of percentages) is that, in addition to setting expectations, it can further enhance the UI. Allowing the user to click between stages so they can go back to check or amend inputs, reduces the use of the dreaded back button. The back button often destroys previously entered data (if you haven't coded your form to protect against this, you should), and causes customer meltdowns before inevitable abandonments.



How using numbers and headings helps manage the process: an example from insurance comparison site GoCompare.

8. Asking for financial information in the right way

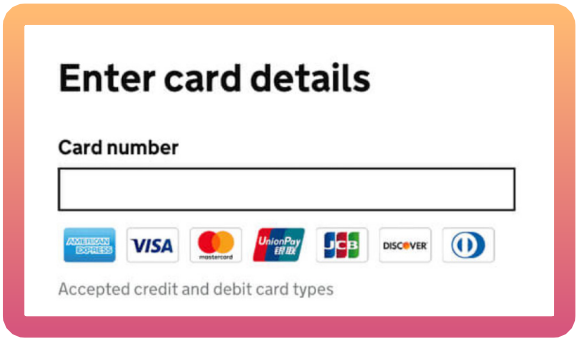
Getting someone to share their credit card information is usually the penultimate stage of their checkout journey. Given the sensitive nature of this data, any friction or negativity within the process can destroy your chances of making the sale.

Data from across Zuko's customer base reveals that between 40-50% of customers return to credit card number fields at least once. They are one of the biggest sources of field returns across most forms.

Our advice to minimise friction at this key stage of the process is to:

i. Be clear what payment methods are offered

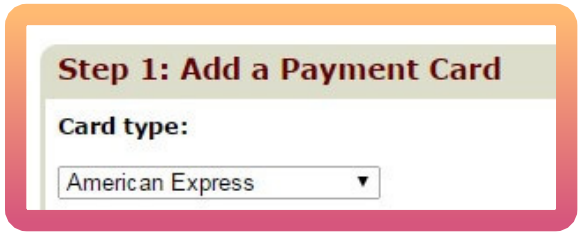
Have you ever tried to use a Diners Club card? Thought not. Though most of us have never seen these mythical beasts, they do apparently exist. Their users are so used to being knocked back (like a 17 year old trying to get into a nightclub), so they are understandably wary of entering their card details if they can't see they will be accepted. Best to make this clear from the start. Here's a good, visually clear example of how to do this from the UK government design system.



ii. Don't ask for unnecessary information

It's not 1995 anymore. You no longer need to ask for some of the things we used to. Specifically, make sure your checkout has purged these elements:

Card types. Get rid of that ugly drop down menu.



Your system can determine the type of card from the first digits entered so you can simply pull all the data from there:

3. travel/entertainment cards (such as American Express and Diners Club)
4. Visa
5. MasterCard
6. Discover Card

The same holds true for banks and their banking sort codes which removes the need to ask for the bank name and address fields.

Start Date. This field is redundant and not needed to process any payments so cut it out with extreme prejudice.

iii. Labelling Fields

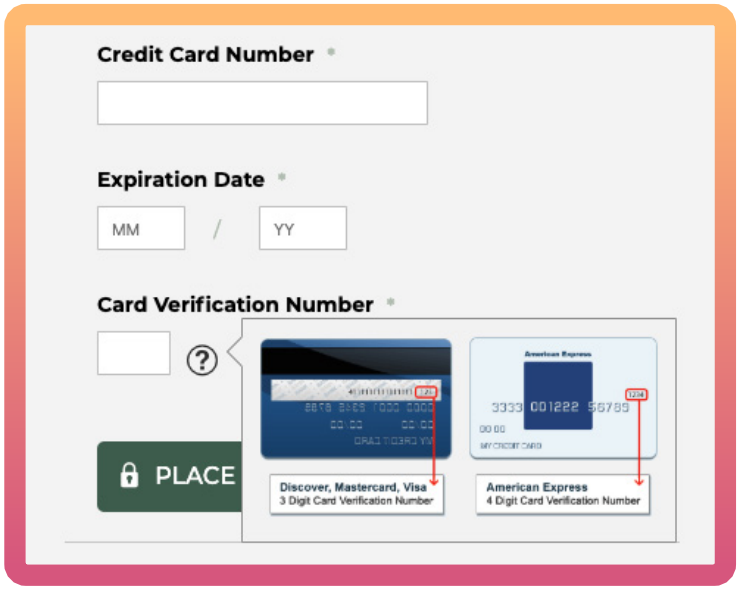
We've mentioned this earlier so we won't repeat the specifics but it's important you don't create any confusion in what information you are asking your user for. The relevant fields related to financial details are:

Card Holder. Always a source of confusion so be careful. You need to make sure you get the name of the cardholder, not the purchaser (if they are different). There are a few different options here but we prefer using just "Name on Card" as the simplest way to make this crystal clear.

Security Code. That simple 3 digit code (which, strangely, sits as part of a bigger 7 digit code) has various different names, depending on the card company.

- card verification value (CVV2, Visa)
- card verification code (CVC, Mastercard)
- card identification number (CID, Amex, 4 digits)

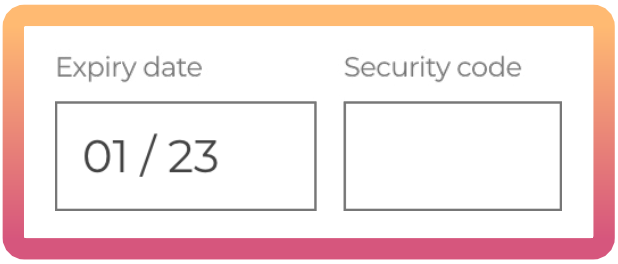
To avoid potential confusion amongst different card holders we recommend going broad with this label and using “Security Code” to cover all possible formats. Although these codes are now firmly established in the public’s awareness, simple visual explainers such as the one below will still help.



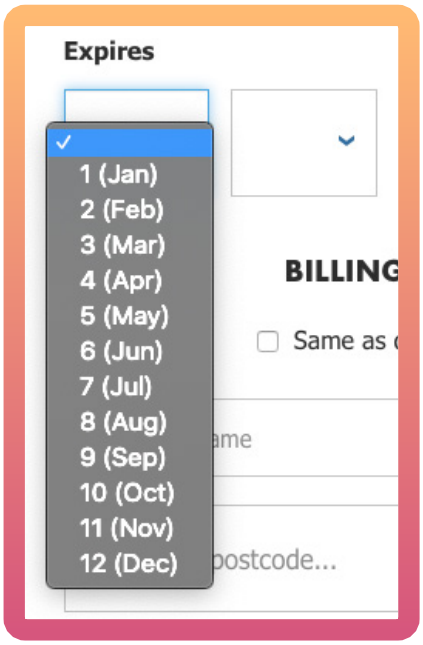
> ★ ***Pro Tip*** *- Be careful with American Express. It has a 4 digit security code so you need to accommodate that. We’ve seen forms that only accept 3 digits for their security code, inadvertently excluding a whole class of users from buying their products.*

iv. Avoid dropdowns

There’s more of this in our design section later. But remember, a single input box is much more user-friendly than a drop down menu.



Easy to use....



...Whereas this can create UX issues

v. Card Number Formats

Users have a tendency to add spaces or dashes between the four digit blocks on their card (23% of them according to the Baymard Institute) which does break some forms. We've touched on this previously but you should accept all of those submissions by reformatting at the back end. If that isn't possible, you need to ensure your microcopy and error messages make it clear the user should not input any spaces or dashes.

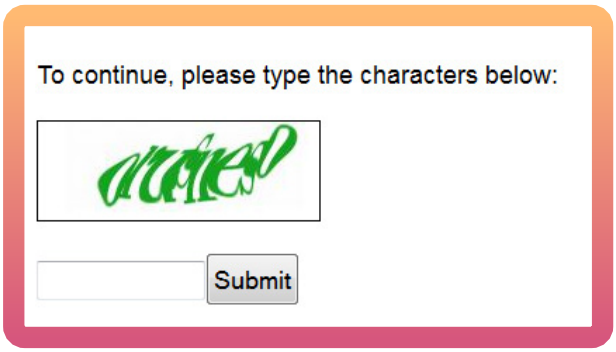
9. To Captcha or not to Captcha?

Spam generated through your website forms is horrible. It blocks up your team's inbox and distracts them from more important tasks at hand. In the worst case, it can lead to bots swamping your system, leading to severe operational issues.

This is the background to why Captcha ("Completely Automated Public Turing test to tell Computers and Humans Apart" for acronym geeks) was developed to root-out automated bot malignancy and prevent fake submissions. Any form user will know, however, the friction that Captcha causes to sign-up processes. How many of us have dropped out in frustration because we can't decipher the random blurry letters?

This original study estimated Captchas prevented 3.2% of all genuine conversions.

So, how do we balance these competing concerns? It's not easy but, fortunately, technology has moved on from "enter these letters" - you should NEVER use those.



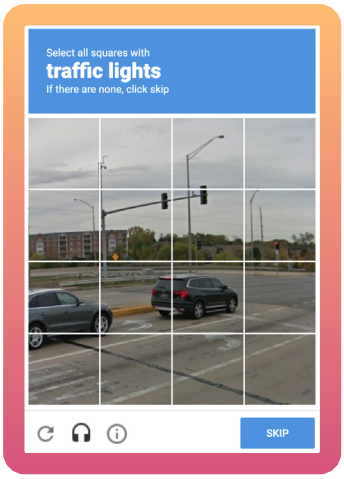
A big NO to these!

The options a modern webmaster has to prevent spam whilst maintaining positive conversion levels are:

i. **Google No-Captcha (Now branded reCaptcha)**

Full disclosure - this is the technology we use on Zuko's website so we like it.

It's the one where you're asked to click a box to confirm you aren't a robot. Google then scans the submitter to confirm and, if there is any doubt, asks them to select images from a collage based on certain criteria.



Source: Google

The latest version of the technology is “Invisible”. It can be bound to the submit button so the user does not see the tickbox. This produces a seamless experience for the user but there is a downside. The technology needs to sit across all of your site (with branding) and tracks user behaviour; including whether they have a Google account. This inevitably leads to concerns about data privacy. Many sites (Zuko included) are currently holding-off installing the latest version until we’re satisfied there are no issues with privacy protection.

ii. Double opt-in

Rather than an onsite mechanism, double opt-in creates a confirmation email which is sent to the user. Their registration is only confirmed once they click on a link within that email.

This will reduce, if not eliminate, spam sign-ups and provide you with a more engaged audience. There are downsides though. Aside from the additional engineering required to make this work (hooking into your system to create a link for the email), it’s likely you will see a reduced volume of genuine sign-ups compared to using single opt-ins. This is because users do forget or decline to click your link. Or the email ends up in spam and is forgotten about. The available studies estimate this accounts for 20% of all users; a hefty chunk of potential customers.

Generally, we recommend holding back on double opt-ins, unless there’s a fundamental need such as:

- You are processing extremely sensitive data
- You’ve experienced deliverability issues with your database in the past (i.e. have been logged as spam)
- You are a potential target for malicious intent

iii. Honeypot method

The whole point of captcha is to distinguish the bots from the humans. The honeypot method does this in a rather sneaky way. It codes fields into your form that are invisible to the human on their browser. However, the bots can see them and eagerly fill them in. Any submissions that include

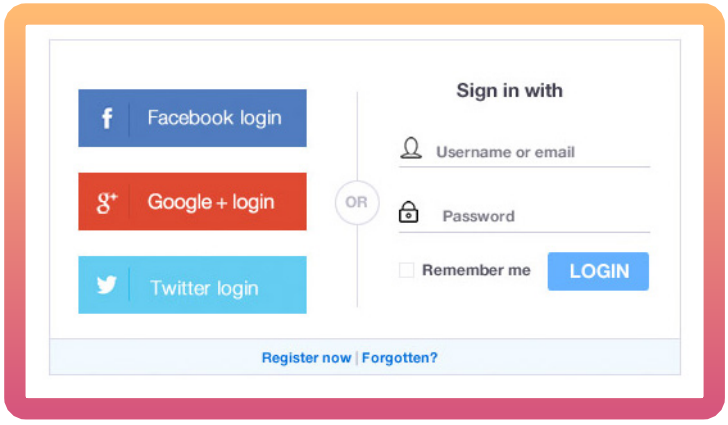
an entry to these invisible fields are marked as spam and filed in the trash.

So far, so good then? Well no. The solution isn't perfect for two reasons. The first is those pesky autofill browsers. Sometimes a user will click on autofill and the browser will fill in the invisible fields, causing the genuine submissions to be rejected. The second is that you inevitably end up in an arms race against the spambots. The bots are constantly refining their spamming techniques and have been re-coded to identify and ignore the honeypot fields so the effectiveness of this technique degrades over time.

That said, it still provides some degree of protection. So if you are dead against using reCaptcha, it's better than nothing.

iv. Social sign-up

Social sign-up is where you use an integration with a third party (usually Social but it can be others - Facebook, Google, LinkedIn, Microsoft & Twitter being the most common ones) to allow the user to sign up using their social account rather than the user needing to provide the details directly.



A standard Social Sign-Up / Sign-In prompt

This has a number of advantages to the standard form sign up, namely:

- It overcomes the reticence of some users to provide their personal details. Blue Research report 86% of people are bothered by the need to set up new accounts on websites and 54% may leave a site and go to another rather than complete another registration form.
- Customers don't have to remember a new username and password, making it more likely they will return successfully.

- Integration with social media allows for easier shares and that's often important to businesses.
- Verified data. Users tend to share accurate data with their trusted social network. So assuming the correct permissions are set up, you should reduce the number of "Mickey Mouse" sign-ups for your site and get good quality personal data for your CRM instead.

Seems like a no-brainer then? While we're fans of social sign-ups in the right circumstances, there are a couple of things you should be wary of:

- **Age group variance** - Data from LoginRadius' social platform showed that only 11% of users aged 50+ opted for social sign-up (compared to 38% of those aged 18-25). If your product or service is aimed at an older demographic then social integrations may not be effective for you.
- **B2B Vs B2C** - Speero, the CRO experts note that adoption rates are significantly lower for B2B enterprises than for those in the B2C market. This is because business users' are reticent to share their personal social details in this context. If your customers are businesses you will be, rightly, less enthusiastic about social sign-ups.

> ★ ***Pro Tip*** *- Social sign-up is a positive for many B2C businesses but we never recommend it in isolation. Even if you have great take-up rate for social integrations, always offer a standard email sign-up too.*

10. Getting them to commit - the submit button

You've managed to guide your user through the form, successfully entering their sensitive personal data as they approach the end.The final hurdle is the submit button. Just one click on that nice, shiny, precious button before they are yours, all yours....

As much as it seems your job is almost done, it's still surprisingly common to witness the user still abandoning your form and going elsewhere. In the General Principles section we talked about how to diagnose why a user drops out before clicking submit. Here, we discuss how to get them to commit at the final step and click on the submit button. Fortunately, there's a universe of super-smart CRO experts out there who have published their findings, so there's plenty of evidence to share on this topic.

While the submit button is an easy and effective element to A/B test, there are a few areas of general consensus on where to focus:

i. Labelling

When is a submit button not a submit button?

Counter intuitively; All the time. One thing that the CRO experts are unified on, is that you should never label your completion button "Submit" (despite what the developers say). A straight submit does not tell the user what their action achieves. "Submit" is a technical action rather than a consumer-led one.

> ★ ***Pro Tip*** *- Your label should tell users what the button does. You can get away with a "Submit Registration", "Submit Request" or "Submit Details" but better to be even clearer with "Create Account", "Reserve my Seat" or "Download the Report Now".*

You can also build on this by adding in positivity tailored towards the user's experience - "Yes, start my free trial" - which can give a further nudge towards conversion.

ii. Visibility

While this seems obvious, we know many webmasters continue to fall into the same trap. Your Call to Action should be the most prominent element on the page. If your user can't see it they can't click it.

Your Submit button is just that. A button. It should not be a text link, an image, or a guessing game. Users have been conditioned to expect their final step to be a button. Now is not the time to challenge their conditioning.

The rest of our advice on visibility is not absolute. It will, in the main, depend on your specific site visuals. However, here are some general points to consider:

- **Colours** - While many studies have shown that making your button red can have a positive effect on click though, there are other advocates for orange or green. Generally, button colour should depend on your site design. The main factor is to ensure that it stands out from the rest of the site and it's clear what it's function is.
- **Positioning** - Again, this is not the time for originality. The button should be where users expect it to be. 99% of the time this is immediately after the last piece of data they inputted.
- **Sizing** - The rule of thumb is to make the button big enough to be impactful and clear. However, there are instances where increasing the size of the button has led to a negative impact on clicks so be mindful.

Overall, much will depend on your own site and your messaging so be sure to A/B test your submit button visuals, copy and surrounding microcopy to continually improve performance.

Section 5

Best Practice Form Design

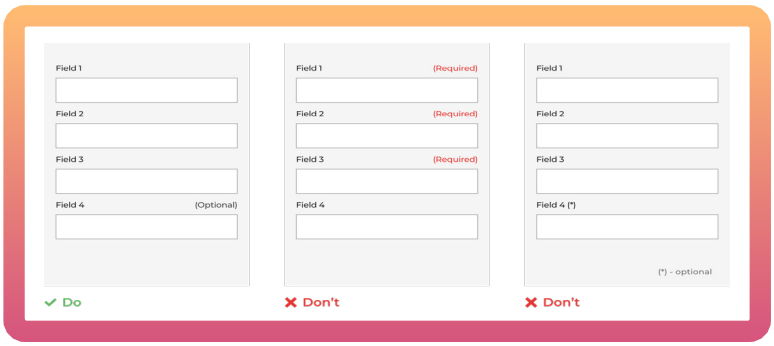
Our final substantive section gives you specific tips on the design / UI of your form. There's a wealth of advice out there from UX professionals. We've collated only the most impactful points on best practice. Rather than going deep into each topic, we've opted for a more "quickfire" overview of each tip. By providing you with the essential starting points, you can make your own mind up whether you need to dig deeper.

1. Clearly identify optional fields

Before you include optional fields, be darn sure you need them. Don't lengthen the process with information that isn't necessary.

Assuming there is a good reason to include the field, the key things to remember are:

- **Never only use an asterisk.** You may think your asterisk clearly denotes a "required" field but the user may not see it that way. They may think it means "optional" or that they should start looking for explainer text at the bottom. Make it clear with text which fields are optional.
- **Make a decision on which fields to mark based on their relative frequency.** If you have ten fields, one of which is optional, you shouldn't mark the nine required fields. Simply label the other field "Optional" and leave it at that. If the scenario was reversed you should only label the mandatory one.
- **Don't use a negative.** "Optional" is a better label than "Not Required", which pretty much guarantees the user won't fill it in.

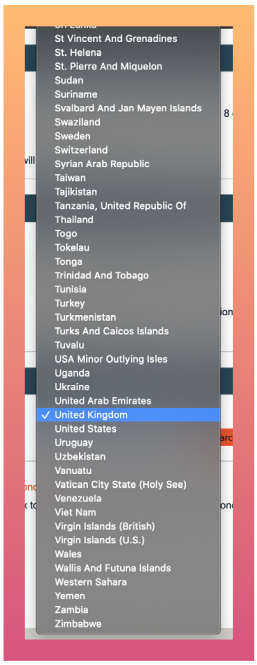


2. Size Form Fields Accordingly

A field's input box should be in proportion to the amount of information required. This acts as a visual constraint and manages the users expectations on how much text to enter (rather than having to give them complicated instructions). As an example, a "House Number" input box should be much shorter than a "Street Address" one.

3. Avoid Drop Downs

Who wants to scroll through a list of 195 countries to find the right one? Drop down menus are notorious for negatively impacting user experience. The problem is exacerbated further in mobile where fat finger syndrome adds another layer of potential mis-taps.



Not a good user experience

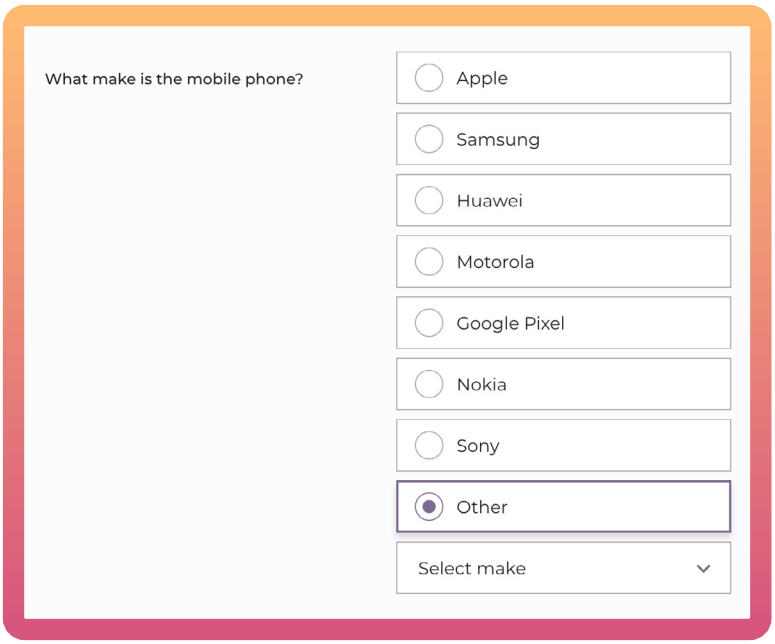
The pitfalls of dropdowns are:

- Not all users know how dropdown fields work
- Dropdowns require a higher number of minimum interactions to select a value (tap, scroll, scroll, tap Vs a single tap)
- Only a small number of options are visible at any one time on mobile screens
- If lists are not ordered, finding the correct value can be time consuming and tedious

Unless absolutely necessary, we recommend avoiding dropdowns and instead, trying one of these alternatives:

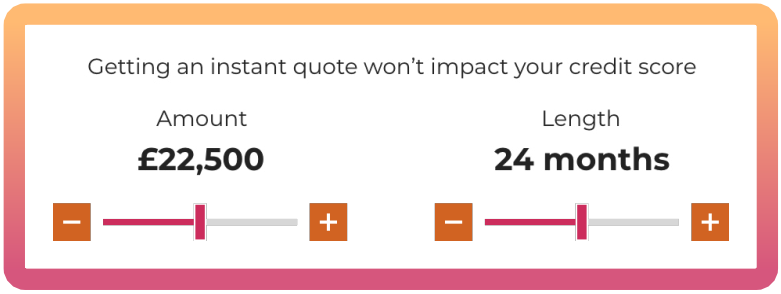
i. Radio buttons

Let your user pick from the options displayed on screen. It's a one click solution compared to the 4+ interactions needed for a dropdown. If your list of options is so long you think it is unmanageable, consider using an "Other" button alongside the most popular options.

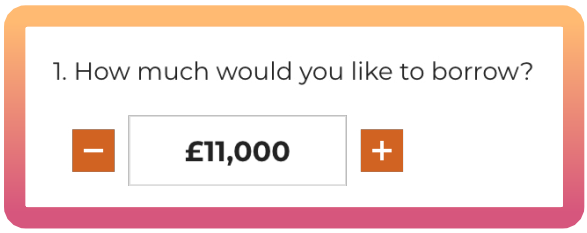


ii. Slider or increase / decrease buttons

If your field is numeric with a wide range of possible values, these give a great degree of flexibility whilst keeping the user experience as seamless as possible.



Slider



Increase / Decrease buttons

iii. Autofill text field

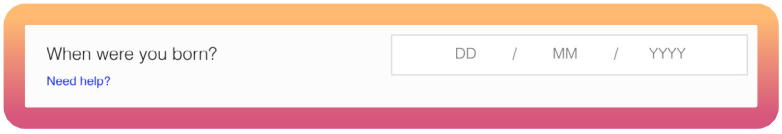
If you have a huge list of options that are specific and well known (think countries), you are best using an auto search / auto fill text bar. Users know their own country so it's a much easier experience for them to tap in the first few characters and select from a smaller range of options, rather than forcing them to trawl through a list of 200.

A good example of autofill hooked into Google's API

iv. Simple text box

When you're looking to capture a date of birth or something equally simple, just stick with a text box. It's 6 key presses and done. No messing about with scrolling or other interactions.

Eye-tracking research commissioned by Zuko revealed that simple text boxes that were clearly labeled distracted the user least and were completed in the shortest time.



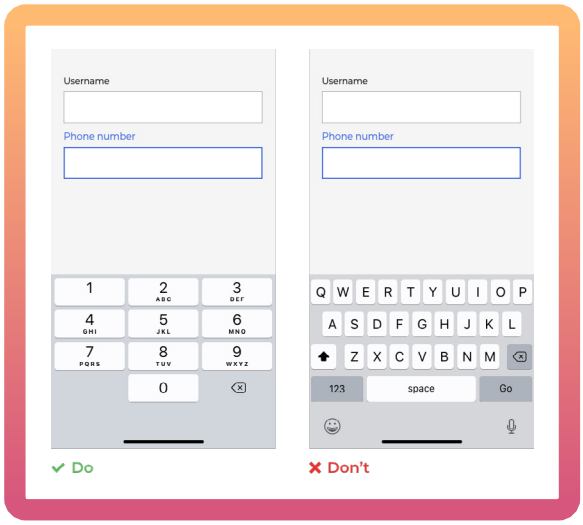
The most user friendly way to ask for DOB

4. Set HTML types to the appropriate format

To optimize the mobile experience of your form, you need to make sure the end device renders the most appropriate keyboard for each field.

To do this, you must set the field to the appropriate input type. The relevant types you should be using are:

Input Type =	Mobile Keyboard Displayed
“text”	The normal keyboard
“tel”	Numeric: 0 to 9
“email”	The device’s normal keyboard plus ‘@’ and ‘.com’
“number”	Numbers and symbols
“month”	The month and year selector
“datetime”	The date and time selector
“date”	The date selector



5. Be careful with static defaults

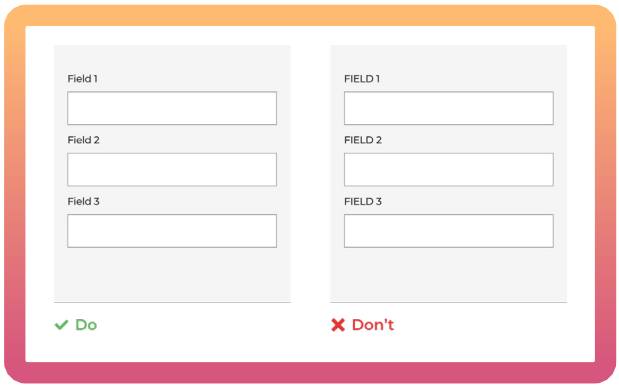
Static defaults are the answers the system pre-selects for all users. The user must then make an active effort to change this default. This way of doing things is popular with dropdowns (another reason not to use them). The danger is that the user sees an answer and hops quickly on it, without checking it properly. This leads to error messages later in the form and inaccurate information within your CRM system.

Only use static defaults if the vast majority of your users fall into that category (think country if you only sell into one geography). We'd only consider using them if 90% of your users fall into the default.

> ★ ***Pro Tip*** *- If you need to add defaults, it's much better to use smart defaults. They suggest an input based on what you know about the user already. For example, if you know the user identifies as male, you can set the default Title field to "Mr".*

6. Don't use CAPS for labels

We've discussed how to make sure your labels are clear and next to the relevant input box. You should also avoid going into SHOUTY mode. Studies, such as [this one by Miles Tinker] show that the use of all capitals slows down the user from scanning and processing the label. They create unnecessary delays in form completion.



7. Use Mobile's native features

With all the inbuilt functionality that mobile devices have today, it would be crazy not to take advantage of it to improve user experience. Specific functions worth exploiting are:

i. Camera

The mobile devices camera can be used as a scanner to pick out relevant information from a document. Rather than forcing a user to manually input their passport, drivers license or credit card details, why not scan them and have the form fill them automatically? (Make sure you allow access to review and edit afterwards though).

ii. Voice

Google reports that 27% of the global online population are using search on mobile. If you have a form requiring particularly heavy text input, why not provide a voice option for completion instead? Or make the whole form interactive so users can complete it while on the move (useful for takeaway food or ordering a taxi perhaps).

iii. Location Services

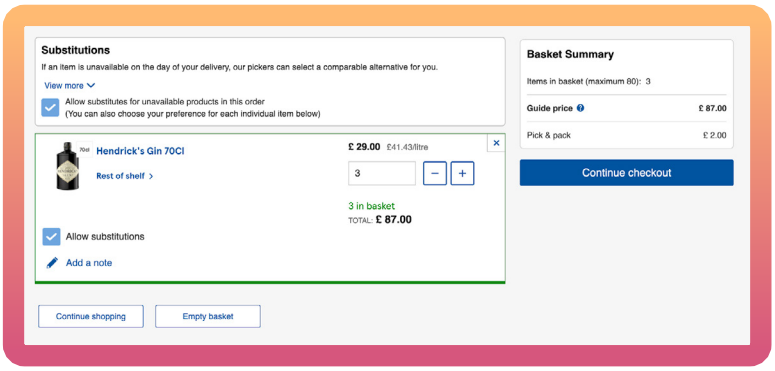
If you're using smart defaults for a location field, you can hook into the user's GPS location (assuming it is enabled) to display the most accurate options.

iv. Biometrics

We've discussed the issues around passwords at length. If you have a form that users need to return to regularly, a biometric login will cut out all associated problems with forgotten or misspelt passwords.

8. No "Nuke" Buttons

Under no circumstances should you add a reset button that allows the customer to remove their previous work. You may think it's a handy little shortcut in case the user changes their mind on some inputs. But believe us, the amount of customers who rage quit after pressing it accidentally, means it's inclusion will significantly outweigh such perceived benefits.

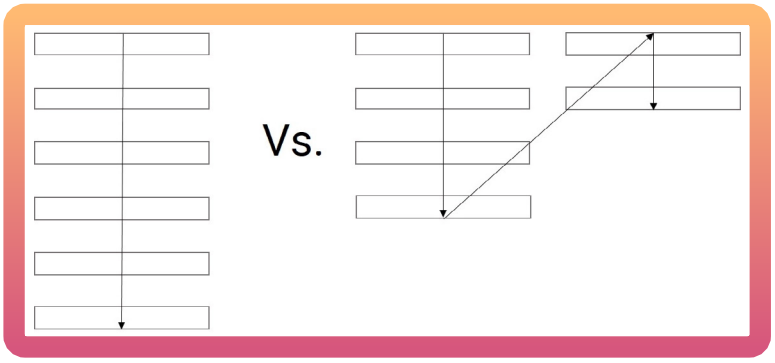


A classic "Empty Basket" nuke button from UK supermarket Tesco

9. Use single column layout where possible

The CXL Institute found that layouts consisting of a single column were completed 15.4 seconds faster than multi-column formats.

The multi column layout requires eyes to jag back and forth, disrupting the experience. Stick with a single column if you can (particularly true for mobile devices).



Source: CXL Institute

10. Easy before difficult

Ever been asked to write a 1,000 word essay at the start of a form?
Of course not, that would be a horrible experience. There's a reason that forms ask the easy questions first. By easing the user into the form with simple requests, you make them comfortable and increase the probability they'll answer more involved questions later on.

> ★ ***Pro Tip*** *- The psychological principle of consistency means users want to follow through once they've committed to something. By getting them to commit to something small upfront, you increase the chances of them becoming a paying customer.*

11. Finger friendly touch buttons

The average adult index finger is 16-20mm wide according to the Massachusetts Institute of Technology. You need to accomodate for that when designing your mobile form. Specifically:

- Unless your target market is babies, you need to make your buttons larger than you think. Guidelines often recommend touch targets roughly 9mm x 9mm but, in reality, they should be larger than that.
- Ensure that your buttons are spaced appropriately or you will get "fat fingers" tapping the wrong one. Ideally they should be at least 8 density pixels apart.

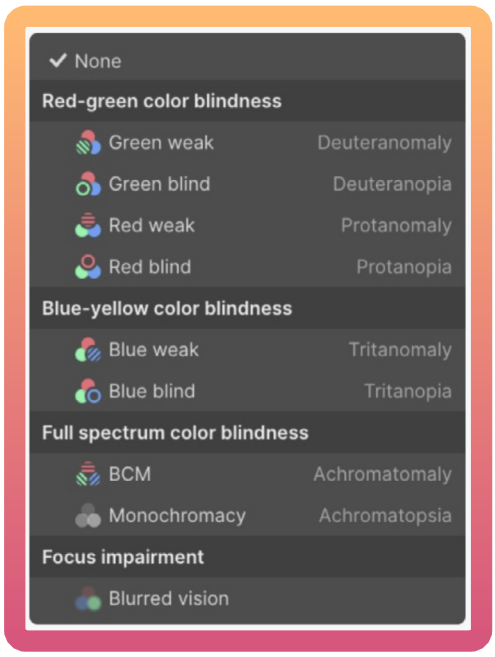
12. Accessibility for All

This is a bit of a passion of ours at Zuko and is critical for all forms. There are numerous studies analysing the money left on the table becuase of the lack of accessibility on websites.

Our recommendations to make your form more accessible are:

- Optimize your form's tabbing navigation. Users who struggle with accessibility may use tabs to move through your form. Make sure that every field in your forms is accessible through tabbing and that the tab flow is intuitive and comprehensive.
- Label your fields well. As we mentioned earlier, this is important for any user, especially those who may be visually impaired. It should be clear which labels apply to which input boxes and they should be legible enough for all users.

- Don't use icon fonts. These are the fonts that contain symbols / glyphs rather than letters or numbers. Some of the software used by dyslexics to help them navigate the web can't read icon fonts. Instead the user is left with a series of confusing rectangles. With one in ten estimated to have some form of dyslexia, this audience is too big to alienate.
- Avoid dropdowns. We've said it before but it's worth repeating. Long lists of options on a small mobile screen don't work well with impaired vision.
- Test your form using a vision preview tool. This lets you see how it would appear for a visually impaired person such as this one from Webflow.



Section 6

In summary

If you have made it this far in one sitting you have our eternal respect. Form Analytics can be complicated and hopefully this ebook has given you enough tips to get your brain popping. Don't expect to remember everything and feel free to use it as a reference guide, dipping in and out as you need to. That said, if you retain only 6 things remember these:

1. **Measure Everything** - Make sure you're tracking the key form metrics and benchmark your performance as you go along.
2. **Break your Form** - Put yourself in the users shoes and interact with every element, testing how the form reacts.
3. **Optimize for Mobile** - Your users are viewing your form through a small screen so make sure it still works well for them.
4. **Use Inline Validation** - Tell the user about invalid inputs immediately rather than when they submit.
5. **Focus on the Submit button** - Find out why users who want to give you money haven't been able to.
6. **Segment, Segment, Segment** - Your most important insights will come through understanding the dynamics within different user groups. Understand exactly how and why they behave differently.

We hope that, in some small way, this book will improve the experience of web users across the world - so please put any nuggets of wisdom into action today!

If you want additional support with your form analytics and optimization after this, you know where to find us....

Appendix

Form Analytics and Optimization Glossary

A

Abandon - When a user starts to complete a form but does not ultimately complete it. The exact criteria will vary by your form analytics provider (Zuko triggers an abandonment after 30 minutes of inactivity).

A/B Testing - The process of testing two form variants with a single difference to compare their relative performance.

Avg. Session Duration - The average session time for visitors to a form. This includes both completion and abandoned sessions.

C

Captcha - A system commonly employed in forms to distinguish human input from bot spam.

Completions - When a user successfully completes a form. NB: This doesn't necessarily mean that they have achieved what they want, just that they have completed the form process (think credit applications - a rejection after all the data has been submitted will count as a Completion as much as an acceptance).

Conversion Rate - The proportion of users who ultimately take a desired action on a website / form.

CRO - Abbreviation of "Conversion Rate Optimization". The process of making changes to your site / form to maximise the proportion of users taking a desired action.

CTA - Acronym for "Call to Action. An instruction that attempts to get the user to take a particular action. For example, "Click Here to Register".

CX - Short for "Customer Experience". CX is the sum total of customers' interactions with a brand, product or service. Typically measured in terms of perceptions and feelings.

D

Default - The answer that the form automatically assigns to a field unless the user consciously changes it.

Also: Static Default - A default that is always the same regardless of user; Dynamic / Smart Default - A default that changes based on information known about the user.

E

Error Message - The message displayed to a user when they submit data that is not acceptable to the form.

F

Field - An individual input required in a web form or checkout (e.g. “Name”, “Address”, etc).

Field Abandon - A field abandoned is the last field a user was interacting with before abandoning a session.

Field Return - A field return is when a user exits a field after entering some data only to return to it at a later stage in their session. A single field can have multiple field returns, and a session can also have many.

Field Time - The amount of time a user spends interacting with a particular field in a session.

Form Analytics - The tracking and metrics of how users interact with your web form.

H

HTML - Hypertext Markup Language, a standardized coding language used to build most web forms.

I

Inline Validation - A technology where messages are shown immediately after the user types data into form fields

M

Masking - A technique where an input (e.g. password) is obscured on screen while it is being typed and submitted.

Microcopy - Small pieces of copy on a form that guide a user through the process.

Multivariate Testing - The cousin of A/B testing, it involves trialing two different versions of a form with multiple differences.

N

Non-Starters - The number of people who do not start the form after viewing it. I.e. They visit the web page containing the form but do not interact with it.

P

Progress Indicator - A visual representation of how far a user has got through a form (e.g. bar or timeline).

R

Radio Buttons - A type of field input that involves the user selecting one of a set of pre-selected options.

S

Segmentation - The breaking down of a user audience into smaller, discrete groups for the purpose of comparative analysis.

Social Proof - A CRO technique where users are subtly encouraged to complete a form through sharing the experiences of other, happy customers (e.g. testimonials or reviews).

Submit Button - The final button on a form where the user can submit all their inputs to the form's owner.

Starters - A form Starter is a visitor who has interacted with any element within the form.

Starter to Completion Rate - The proportion of users who successfully complete the form after starting it.

U

UI - Abbreviation of "User Interface". The way a user interacts with a digital product (typically involves the display rendered to them plus the possible interactions generated by the form / site).

User - An individual who is visiting a website / interacting with a form.

UX - Contraction of "User Experience". Encompasses all aspects of the end-user's interaction with the form and website.

V

Views - The number of times a form was viewed by a unique visitor (includes starters and non-starters).

View to Completion Rate - The percentage of form views that ultimately end up converting.

View to Starter Rate - The proportion of users who interact with the form after viewing it.

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The Big Guide to Form Optimization and Analytics
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