USING AMAZON'S MECHANICAL TURK FOR PSYCHOLOGY RESEARCH
(Or, How Not to Get Angry Emails and Bad Data, and Some Gory Details on How to Use the Site)

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WHO CARES?!!

I know, I know. I can read your mind as you open this document: *Seriously, who cares about doing MTurk well? I just want my data! Why did you write this ridiculously long document that I need to read now? With this, I'll never graduate in time! Thanks a lot, Alice.*

So why should you care? Besides being a generally ethical researcher who realizes that many Workers rely on MTurk for necessary income (think kids, groceries, and rent), you are representing researchers and your own lab, however temporarily, and if you are a jerk to Workers, you can say sayonara to good data for your own study and your lab can kiss future participation goodbye.

MTurk is a great research tool, but what's that famous saying? Oh yeah, with a great research tool, comes great responsibility.

There are two major parts of your responsibilities in using MTurk for psychology research, and therefore there are two major parts of this document: the interpersonal stuff (being considerate of Workers) and the technical stuff (how the heck do I set up a study on MTurk?). The interpersonal stuff comes first on purpose, per the notes above. But first, let's cover the basics, so that we're speaking the same language about MTurk.

THE BASICS

The general concept of Mechanical Turk is humans operating inside of what looks like a machine – it's named after an "automated" chess playing Turkish wizard that fascinated crowds back in the 1700s and 1800s. It turned out that the amazing machine – which could beat humans at games of chess, something that wasn't achieved in reality until much, much later, in the 1980s – was actually operated by a human who hid inside and operated the Turk.

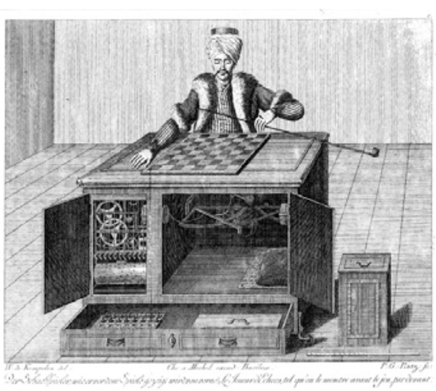
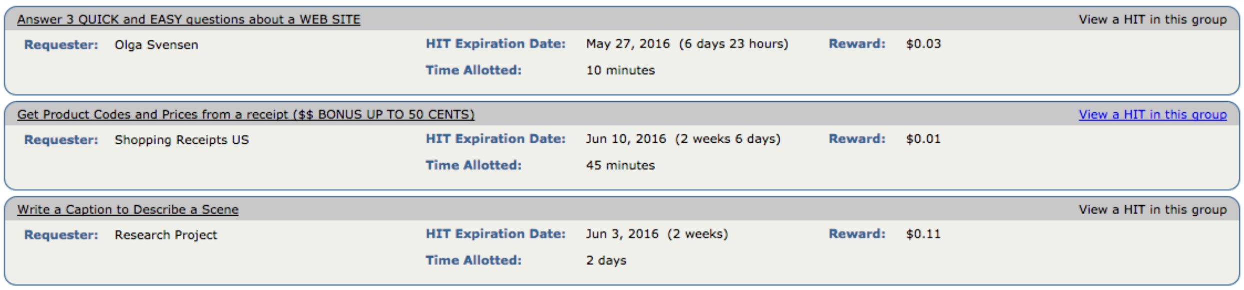


Image Source

So that brings us to MTurk, which operates on the same principle – we post tasks that appear to be automatically completed. But it's important to not forget the human working "inside" the platform! More formally, MTurk (mturk.com) is a platform that is operated by Amazon Web Services. Amazon provides this website as a "marketplace" where Requesters (that's you) can set up shop and ask for Workers to complete various tasks that need a human (instead of a computer) to get them right – like reading receipts, counting objects in a picture, classifying objects in a picture as pants or a dress, or taking a research survey.

Requesters post their various tasks as Human Intelligence Tasks (HITs, for short), which show up in a giant list, shown below. Workers read a short description of the task, see how much it pays, and decide whether they want to complete the task. If so, Workers "accept" a HIT and take it (at least temporarily) off the market while they work on it. Once Workers complete the task, the "submit" the HIT for their work to be approved by the Requester.



The Requester can review submissions before approving them, perhaps checking to see if surveys were successfully completed, or a correct completion code was provided. This looks like a list, too, shown below. The Requester can select boxes beside each Worker's submission then hit "Approve" or "Reject." There is also an option to download this as a comma separated values (.csv) file, make your decisions there (harnessing the power of Excel to make efficient comparisons, perhaps!), and then upload the file to approve and reject submissions – see p. 24.

Alternatively: If the task turns out to be horrible (perhaps the survey is too long for too little pay) or for any reason the Worker wants to "return" the HIT instead of submitting it, they can do so. This means it is back on the market and another Worker can complete it.

So the basic process is this:

- Requester posts HIT
- Worker accepts HIT
- Worker completes and submits the HIT (or alternatively, returns the HIT to the market for another Worker to accept, complete, and submit)
- Requester approves (or rejects) the HIT submission, and Worker is paid (or not)

Now that we've got our basic process and vocab, let's talk about how to be a good Requester.

THE INTERPERSONAL STUFF
(Alternatively Titled: How to Not Get Angry Emails and Bad Data)

The overall guiding principle is this: Be thoughtful about what you're doing. This is really the overarching theme of my advice based on my experiences. Every decision and setting you choose will affect Workers' experiences with you and with your lab. Treat Workers like any other participant or, even better, like you would treat an employee – you are the one paying them for their work, after all.

Step 1. Budget to pay fairly. Yes, "fairly" can be hard to define. (And yes – pay is an interpersonal matter on MTurk!) Some researchers recommend looking at what similar tasks pay. I strongly recommend also using common sense (e.g., a reasonable estimate of how long it will take to complete your 200-question survey with 15 open-ended essay-style questions, plus a reasonable guess of how awful that work might be…) and knowledge of minimum wage (currently $7.25 an hour in the United States; that means a 10-minute survey would pay about $1.20). MTurk is a marketplace, so you get what you pay for.

You are likely working with some fixed amount of funding here. It may be tempting or seem easier to just divide your amount of funds by the number of responses that your power analysis said you needed. If you do this, you're likely going to end up with some low payment amount. Do not do this. Seriously. Do NOT do this. Low, unfair pay is the number one worst Requester behavior, as told to us by Workers (see Brawley & Pury, 2016 for more useful details). As pointed out above, be thoughtful. Specifically, be thoughtful about that Worker who is getting the pay you're calculating here. It is up to you as the researcher to figure out how to balance the amount of data you need with fair payments to Workers, given the funding you have.

Here's a handy formula for figuring out how much you should ideally pay participants. Determine a reasonable estimate of how long your HIT will take. Consider adjusting the "1" in the formula to pay more than minimum wage – perhaps 1.5 or more, given the nature of the HIT.

$$\text{pay to participants (in \$)} = (1 \times \$7.25 \text{ minimum wage}) \times \left(\frac{\text{length of HIT in minutes}}{\text{60 minutes in an hour}}\right)$$

And here's a handy formula for working out your number of possible participants based on paying minimum wage given a certain survey length and your total funding. This formula assumes that you're posting HITs in batches of 10 or more, and that Amazon still charges a 40% fee[1]. Adjust the ".40" if needed, should Amazon's rates change in the future.

$$\text{\# of possible participants} = \frac{\text{available research funds (in \$)}}{\text{pay to participants (in \$)} + [\text{pay to participants (in \$)} \times .40]}$$

[1] You may want to consider some thoughts on alternatives for posting HITs in smaller batches in this presentation: https://docs.google.com/presentation/d/1Y_lvecsOefCfkXkkrdFtW1GH-NkoZidKzKXqFVJaLH4/edit.

2. Use MTurk as a Worker. (Not only can you make a little money, you also get good research karma!) Specifically, pay attention to what other Requesters do that is frustrating or annoying. Think about how you can design your study so that your HIT avoids or minimizes these things. Here's some stuff we've gotten great feedback from Workers on or I've seen that is annoying in other HITs – think of this as a what ***not*** to do list:

- Including too many attention checking items - this can actually be sort of offensive, and is relative to the length of the survey.
- Broken survey links
- Revealing qualifications (e.g., working a full time job, certain age range) after starting to work on the HIT
- Saying a HIT will take less (or more) time than it really does – if anything, overestimate, but know that Workers will also notice and worry when the task doesn't take as long as you say it should, since they could have missed something, etc.
- No progress bar on surveys – this is a simple setting in Qualtrics (or whatever other survey platform) that makes a big difference
- Needless scrolling required - Workers will appreciate you helping them be more efficient. Extra seconds matter and add up across HITs.
- No completion code - it's a small thing, but it is a nice assurance to Workers that they can confirm their work for you in case of any questions, and an easy way from the Requester's perspective to easily see who got to the end of the survey or task.

3. Check your Requester account email. Be responsive to issues, and be open to the fact that you may be making an error or unfair choice. Do this often while you are actively running studies. Many MTurk Workers have completed a lot of HITs other than yours, so they most likely are honestly letting you know that your HIT isn't working as well as it could be. Yes, you might get a stray response that isn't reliable or is just upset after what was really an honest decision to reject a submission, but if you're getting a lot of negative reviews (see next point) or emails, be responsive. (And if at all possible, bonus those awesome Workers who take the extra time to help you out and let you know!) Rely on the perspective that you got in step 2.

Make it easy for Workers to give you feedback about your HIT. I like to include a response box for any comments in my HIT. That means a Worker can tell me if something went wrong or looked off without having to spend extra time sending me an email, and I can fix the issue faster since I'll see it when I check submissions to approve them. (Still, if it's at all possible, bonus people who let you know this stuff! They still took the time to let you know.)

If you need to undo a rejection (and please do this if it's needed! Workers' money and approval ratings are on the line.), see the section on "un-rejecting" HITs on p. 24.

4. Keep an eye on Requester review sites. Check these on a regular basis when you're actively running a study. The main one is Turkopticon: https://turkopticon.ucsd.edu/. Find the page where your Requester account's reviews show up, and check it regularly.

Also, Googling "MTurk Requester" + "your Requester name" will be helpful and bring up other forums where Workers are talking about your HITs. These are another great source of feedback about what Workers like and dislike about the way you're working with them.

THE TECHNICAL STUFF
(Gory Details)

Step 0. Don't rush a bad study onto MTurk. Like I mentioned above, be really thoughtful about what you're doing before you do it on MTurk. When you plan well and pay fairly, you can collect data seriously fast. I've collected data for entire studies in a single day - and it is SO exciting to say not "I collected data from May to December" but "I collected data Tuesday afternoon!"

But! Remember to not skimp on your research design and HIT design in anticipation of this. You can collect good data quickly if you take your time up front with the design, or you can also very quickly collect (and pay for!) data that turns out horribly because you rushed the planning and execution out of excitement.

Step 0b. Make sure you've discussed your plan and timeline for using the account with anyone else in your lab who uses the account. This is important so that everyone can coordinate if and when there are multiple projects going on.

Image Source

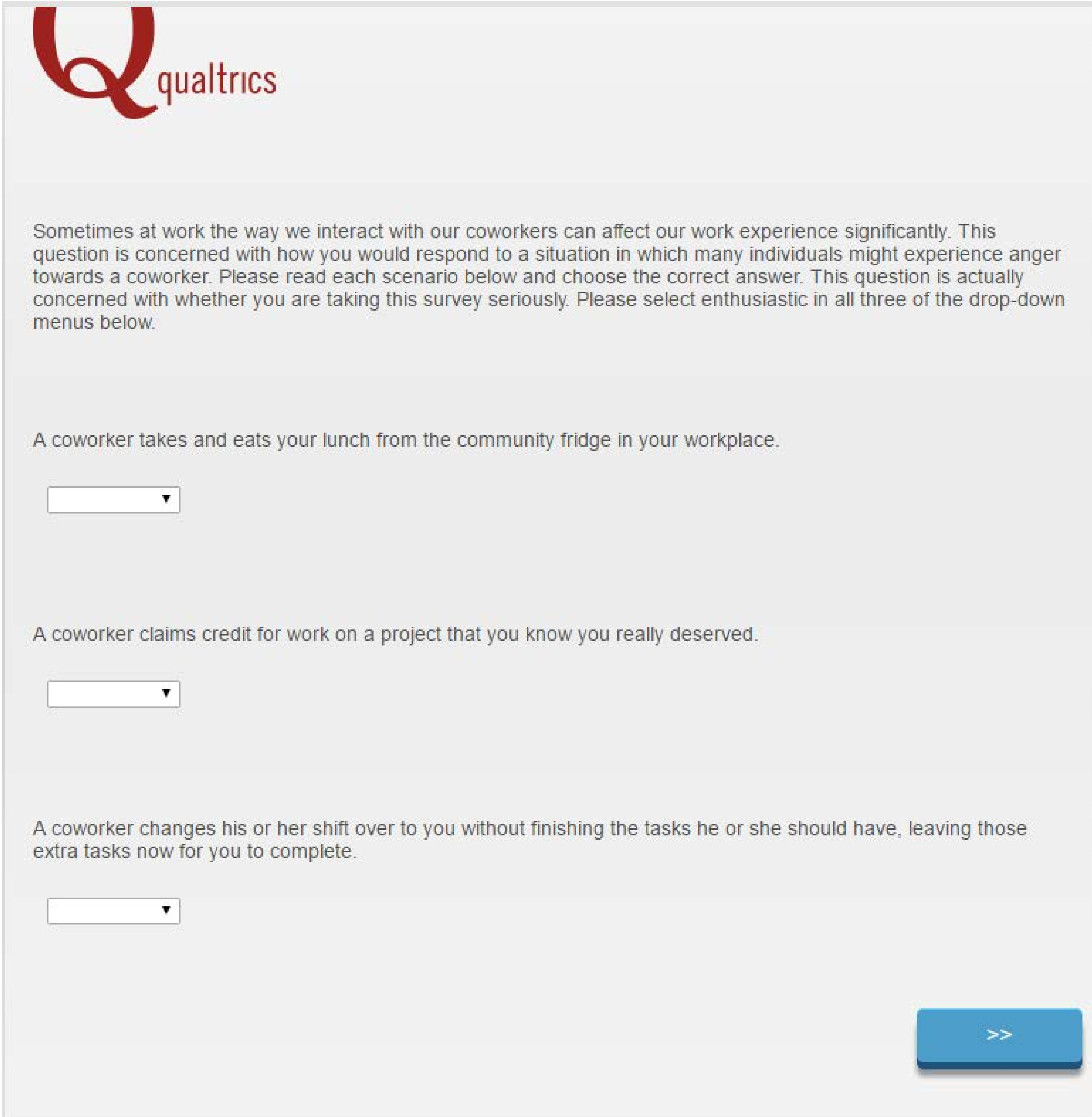
1. Be thoughtful about your attention checking items. This is related to step 0 and these are really popular in research, but really consider whether they're really fair to participants who are indeed providing you with good data. Some types of attention checking items we've used include:

- Directing an answer in the item itself - e.g., *Select strongly agree if you are paying attention.* The problem with these items is that MTurk Workers are not really naïve and might easily spot these items among other scale items.

- Directing an answer, but buried in longer text - e.g., A long paragraph about something vaguely related to psychology/your study, then reveal that the true purpose of the paragraph is to check attention and instruct participants to give a certain answer, like the example on the next page. The problem is that these, again, stick out to experienced workers, and really aren't that fair – think about whether you really read the details when you see a long paragraph (hello, any terms of service agreement, ever!), and whether that matters for the data you are actually interested in from people (Workers likely already know very well how to use a dropdown or click radio buttons without detailed instructions).

  You can see an example of this type of question on the next page. Read the instructions and see if you would get this attention check right (OK, but pretend I didn't tell you it's an attention check!).

- Nonsense items or other items that have a "correct" answer - e.g., *I have never brushed my teeth.* While these are more creative and less easy to spot in a list of survey items, the problem to consider with these items is that not all nonsense items may clearly have one correct answer, either in general or across different cultures. Carefully consider whether these items have a true "correct" answer.



qualtrics

Sometimes at work the way we interact with our coworkers can affect our work experience significantly. This question is concerned with how you would respond to a situation in which many individuals might experience anger towards a coworker. Please read each scenario below and choose the correct answer. This question is actually concerned with whether you are taking this survey seriously. Please select enthusiastic in all three of the drop-down menus below.

A coworker takes and eats your lunch from the community fridge in your workplace.

A coworker claims credit for work on a project that you know you really deserved.

A coworker changes his or her shift over to you without finishing the tasks he or she should have, leaving those extra tasks now for you to complete.

>>

Here's a sample attention-checking item that buries instructions in longer text. Think carefully about whether this is the best approach when the rest of your items are in a radio-button-matrix survey format.

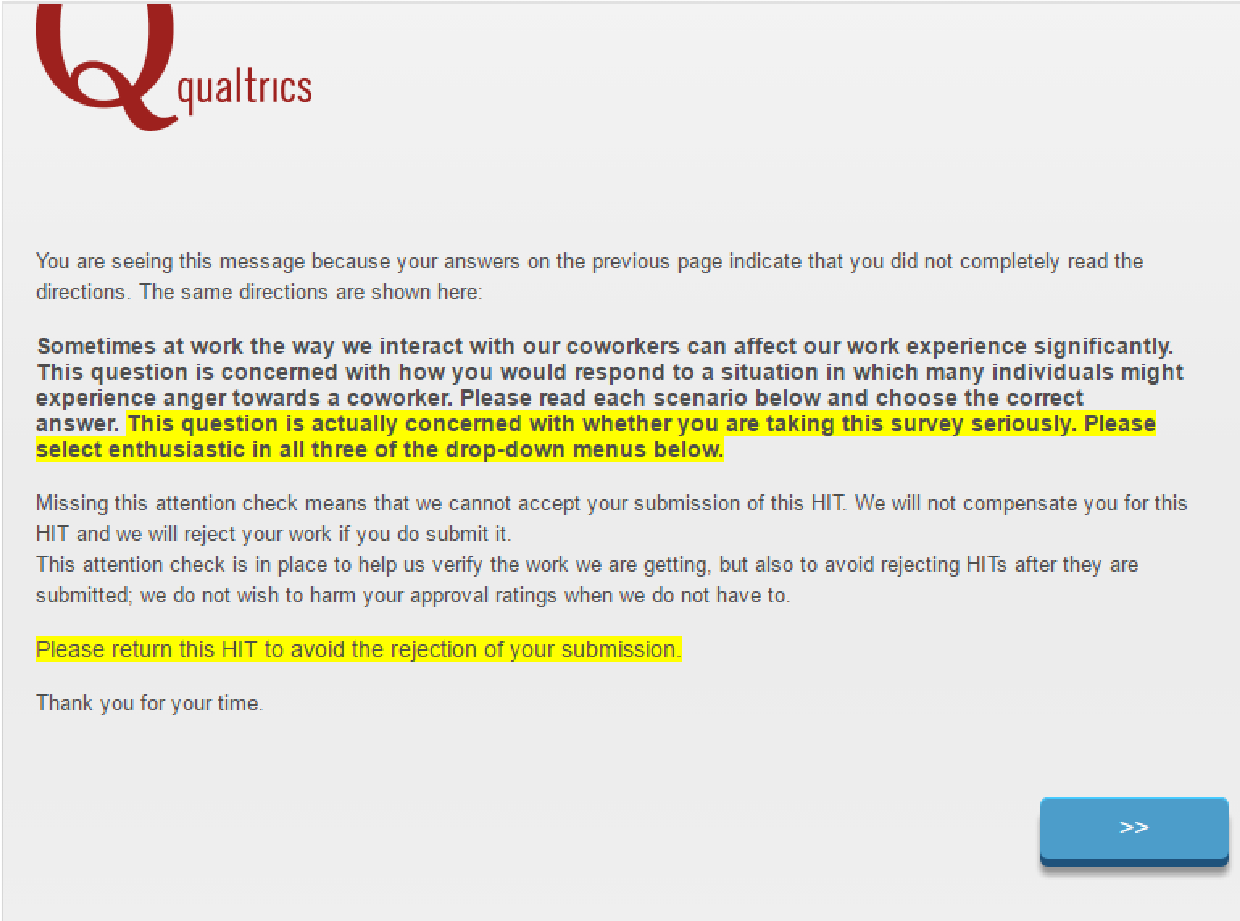
1b. If you use attention checks, decide how you'll use them. You have a couple of options here. Make sure Workers know ahead of time (i.e., in your informed consent – ideally, highlighted) what you'll be doing. Options we've used before include:

- Approving all responses with a correct completion code, then cleaning the data using the attention checking item before running your analysis – The pros of this approach include easier data collection (you don't have to check the data repeatedly and compare Worker IDs for all submissions), and Workers are pretty happy with this approach. The downside is that you potentially pay for a chunk of data you end up not using. Across a few studies so far, that percentage seems to be larger – perhaps due to language differences – in samples of non-US Workers.

- Check the attention check responses after submission and reject any submissions that missed the attention check – The upside is that you only pay for good data. However, the pretty large downside is that you waste Workers' time (they potentially submitted something they think went fine, will get paid, and won't ruin their approval rating). You will probably get angry emails. You also have to put in the time up front to check each set of survey responses before making the decision to approve or reject.

- Decide on some reasonable cutoff out of multiple attention checks – The upside is that you're being a little more forgiving to Workers (they're human – do you really think you'd get every single attention check right yourself?) but also ensuring data quality up front. You still may decide to do this before or after approving the work, which is another choice to consider along with determining the number of checks that it's "reasonable" to miss.

- A happy medium that worked well for us: put the attention check fairly early in the survey, notify Workers right away that they missed the item in question, and ask them to return the HIT instead of submitting it – The upside here is that you get good data without upsetting Workers quite so much as you would if you let them go on, finish the HIT, and you reject their work in the end. Check out our sample of these instructions on the next page – this corresponds with the attention-checking item from the previous page.



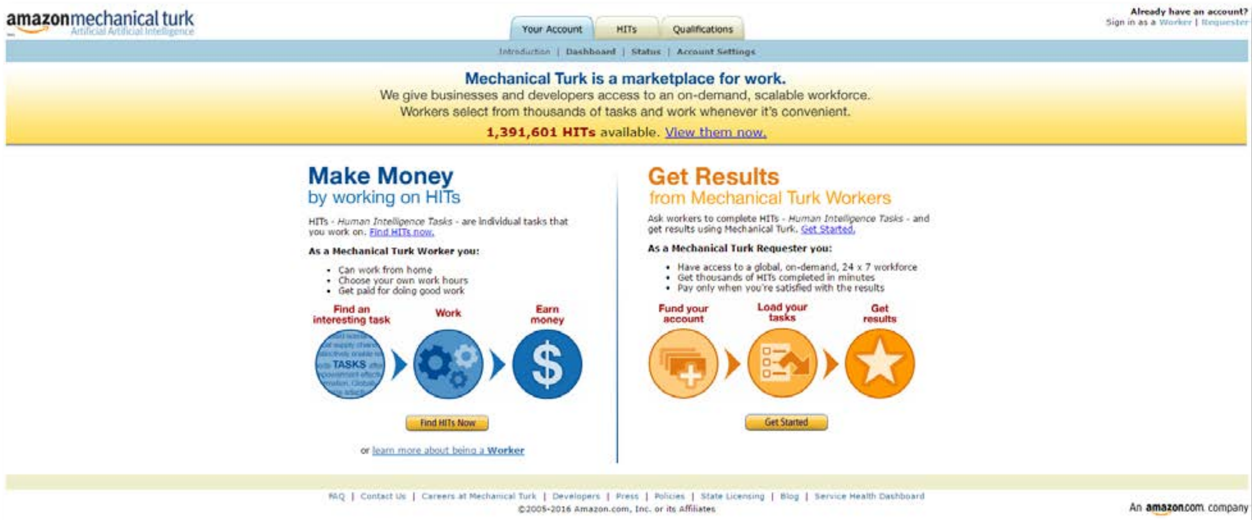
Be sure to think about the placement of attention-checking items within your survey. Are they near the end of the survey, where Workers will get booted out after completing the almost-entire survey? It can be better to place these items near the beginning, so Workers do not waste more time than necessary if they won't ultimately be paid.

One final consideration with attention checking items is whether you're going overboard with them. Having an attention-checking item in a really short survey could be annoying or offensive to Workers; having too many attention-checking items in longer surveys can get the same reaction. Think about how the experience of taking the survey will be for Workers.[2]

2. Get your account login info from your lab advisor or manager.

Log in by going to MTurk.com, then clicking on Requester in the top left corner, under "Already have an account?". If you don't already have an account, you will likely need institutional tax info – start with your department administrators to get this info.

[2] See more thoughts on the ethical issues surrounding attention checking items on MTurk in our talk here: https://www.youtube.com/watch?v=38Am6FXXXW0 (Talk continues in a second part, available at: https://www.youtube.com/watch?v=B_GwXsTWvdg).



3a. Determine how much you will pay for Workers to complete the HIT.

In our lab, we have used the federal minimum wage in the US as a baseline for pay. Plan to pay *at least* this rate for how long you expect the survey or other task to reasonably take to complete. See page 3 for calculating fair pay.

Remember to start with calculating fair pay, then determining your potential sample size, rather than working backwards to what you "can" pay based on your available funding.

3b. Deposit funds in the account. To reiterate, see page 3 for calculating fair pay, first. Then calculate how much you'll need to deposit by using this formula:

$$\text{total amount to deposit (in \$)} = \\ \Big[(\text{pay to participants (in \$)} + [\text{pay to participants (in \$)} \times .40]\Big] \times \text{number of participants}$$

Your number of participants should in most cases for research surveys equal the number of assignments you post for your HIT. Note that Amazon's fee increases if you have more than 10 assignments (e.g., if you post the survey to be taken once each by 100 people, this means you pay the higher fee rate). Amazon's fee is 20% of the pay per assignment if you're below 10 assignments (or minimum $0.01 per assignment), plus another 20% if you're above 10 assignments. Therefore, in most cases, Amazon's fee will be 40% of how much you pay Workers.

Amazon Mechanical Turk Pricing

The price you (the Requester) pay for a Human Intelligence Task ("HIT") is comprised of two components: the amount you pay Workers, plus a fee you pay Mechanical Turk. The fee you pay Mechanical Turk is based on the amount you pay Workers. Additional details are as follows:

Worker Reward	You decide how much to pay Workers for each assignment.
Mechanical Turk Fee	20% fee on the reward and bonus amount (if any) you pay Workers. HITs with 10 or more assignments will be charged an additional 20% fee on the reward you pay Workers. The minimum fee is $0.01 per assignment or bonus payment.
Additional Fee for using the Masters Qualification (What are Masters?)	5% of the reward you pay Workers.

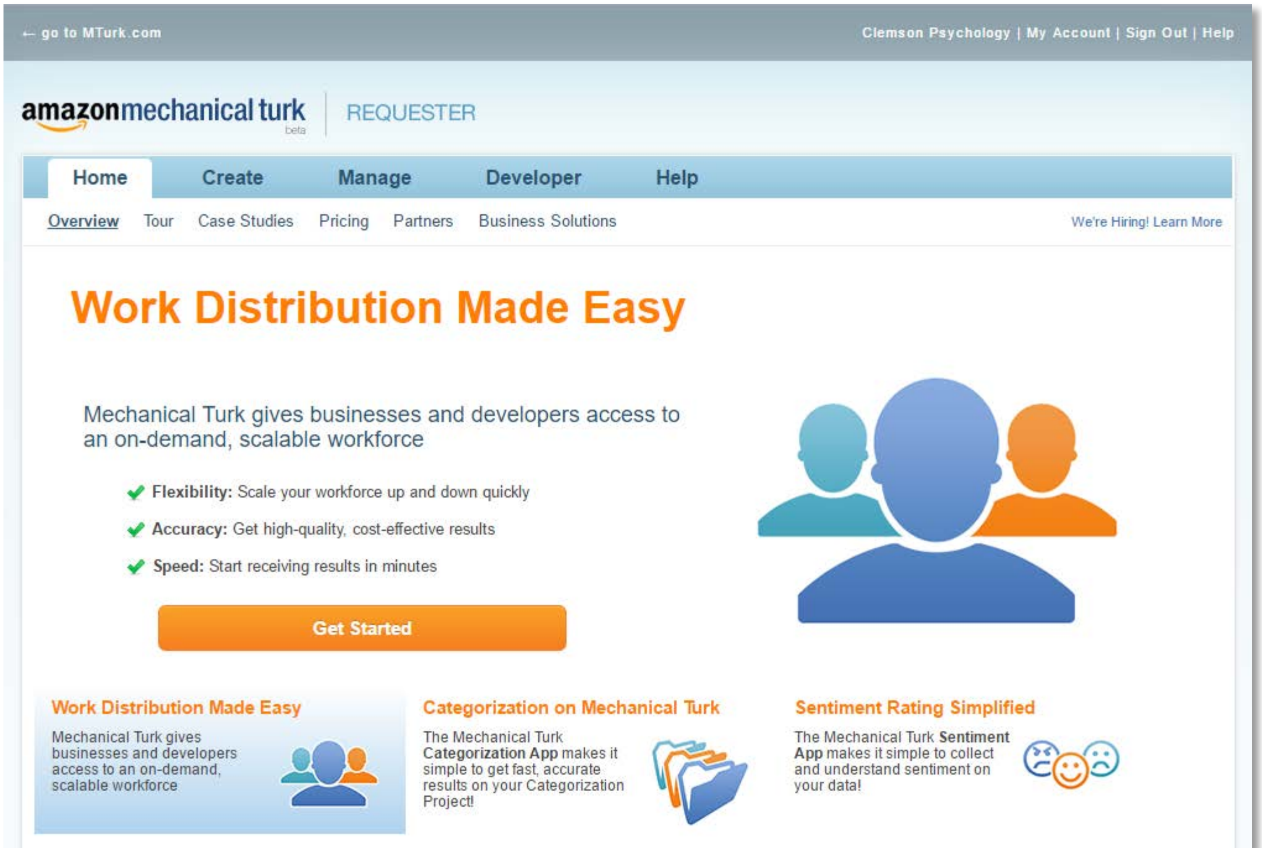
You will also see that you have the option to pay more to limit your HIT to be completed by Workers with a Masters Qualification. Amazon's statement on who gets the Masters Qualification is below.

Who are Mechanical Turk Masters?
Mechanical Turk has built technology which analyzes Worker performance, identifies high performing Workers, and monitors their performance over time. Workers who have demonstrated excellence across a wide range of HITs are awarded the Masters Qualification. Masters must continue to pass our statistical monitoring to maintain the Mechanical Turk Masters Qualification.

I strongly recommend against using the Masters Qualification. The criteria for this qualification are not clear – to both Requesters and Workers alike – and it is only assigned very rarely and by ambiguous methods. Workers rail against this qualification because many highly-qualified Workers never earn the Masters Qualification. So for researchers, we are limiting our sample by unknown criteria of "excellence" and paying more for it.

I'll repeat this in the next section on creating HITs, but be very wary about this distinction when you create your HIT – by default, you opt-in to using only Master Workers. You have to change this option from the default.

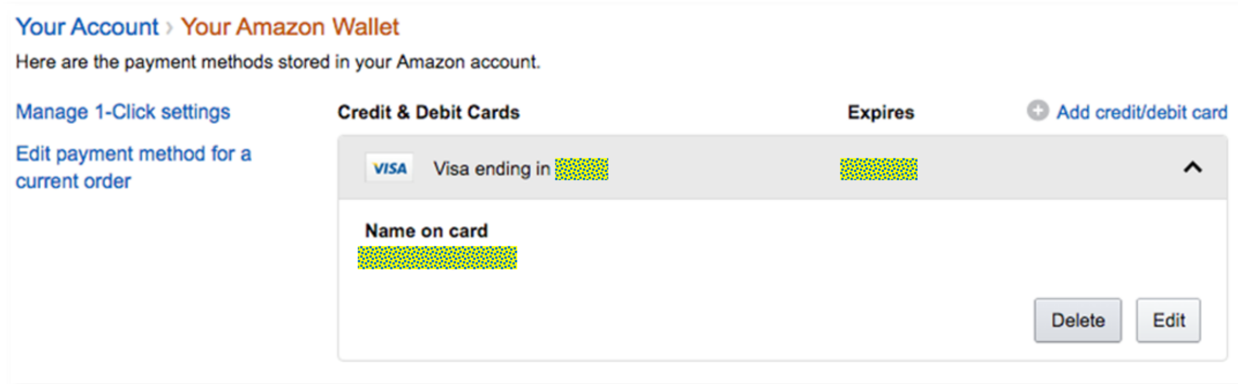
To deposit funds, from the main page after logging in, click on My Account in the top right menu.



From this page, you can enter your amount to deposit and click "Proceed to purchase." You will need to enter payment information – i.e., credit card number and info – next, so make sure you have this ready.

3c. Delete the card info that autosaves every time you use it. It is *way* too easy for you or anyone else in your lab to accidentally purchase HITs or something else on Amazon using the same card info automatically if you don't do this, and you may have to deal with a pretty intense documentation and clean-up process with your institution (or your own personal money) that is way more trouble than just deleting and re-entering the card info each time.

To do this, go to https://www.amazon.com/gp/wallet and login with your Requester info. There, you'll see the option to delete the saved card info. Note that sensitive info has been masked in the screenshot below, and similarly throughout this document.



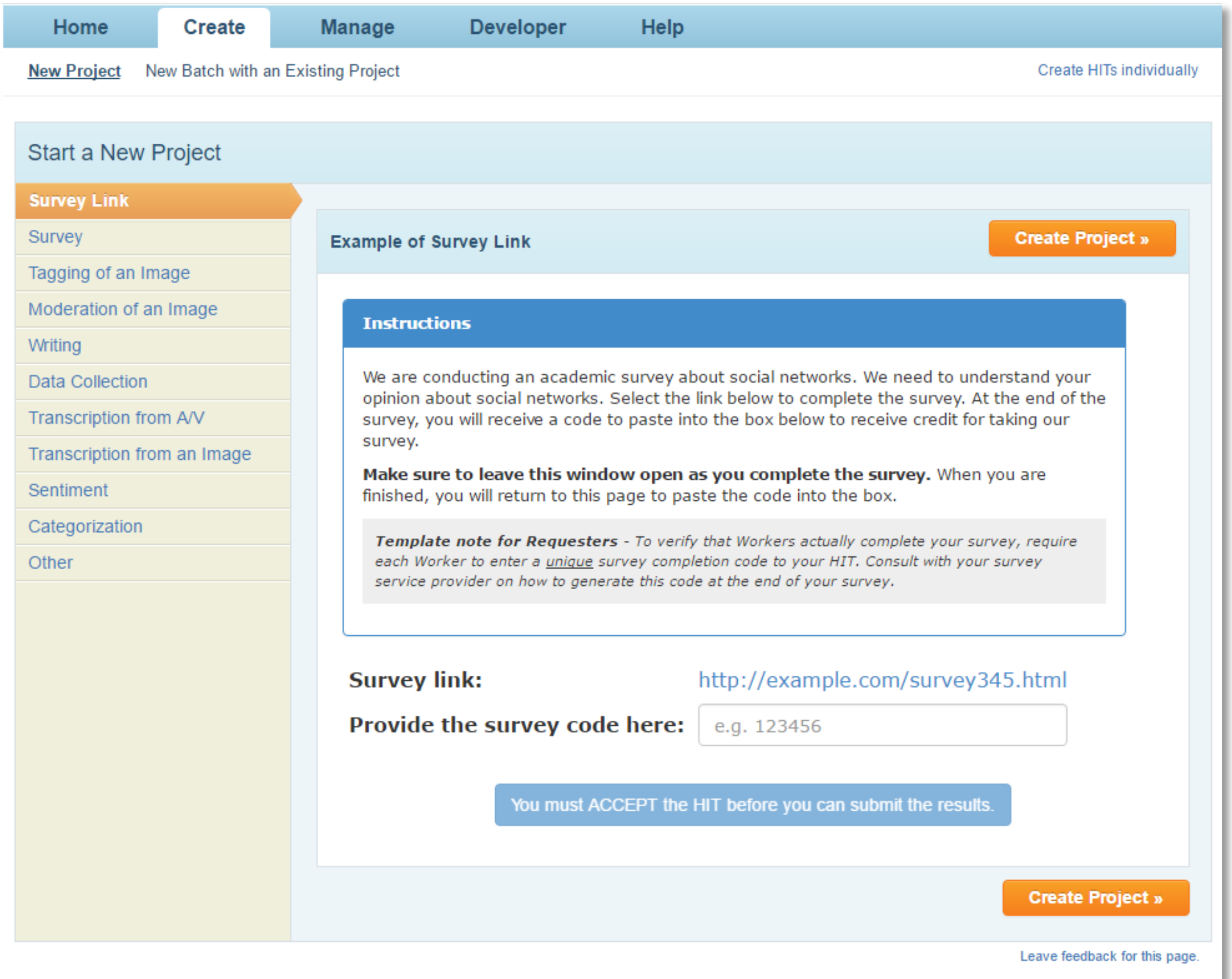
4. Create your HIT.

To create a HIT, go to the Create tab.

On this tab, you'll see all the past HITs created by you and your lab, and any HITs that you create will appear on this tab.

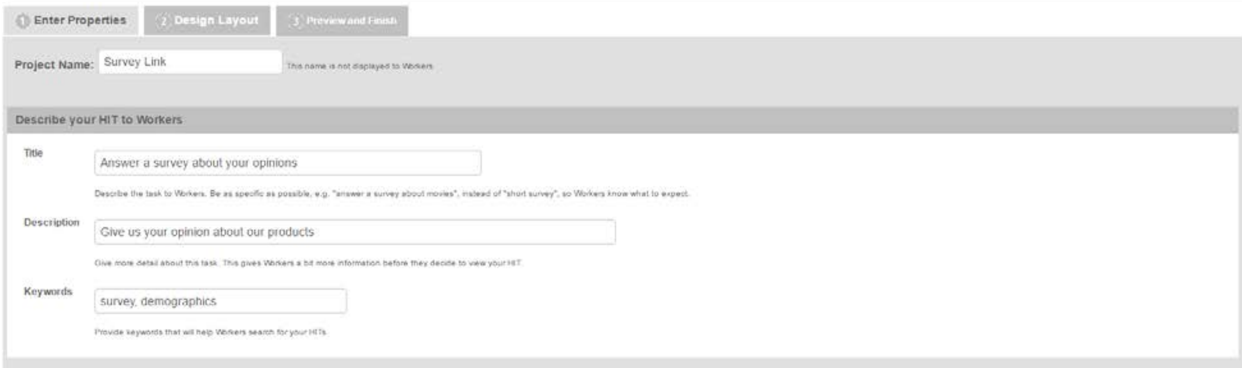
There are two main ways you can create HITs – by working from scratch or templates, or by copying then editing existing HITs from your lab.

First, you can create a HIT from scratch or a number of Amazon-provided templates by selecting "New Project" just under the Create tab.



Once you choose the template you like, click the orange "Create Project >>" button to get started. You'll see a new page with three tabs – (1) Enter Properties, (2) Design Layout, (3) Preview and Finish.

First, on the Enter Properties tab, enter a Project Name – this should be meaningful to you and your lab, but Workers won't see this name. Below that, the title, description, and keywords are what Workers *will* see, so make sure this matches what you want Workers to see when your HIT is posted.

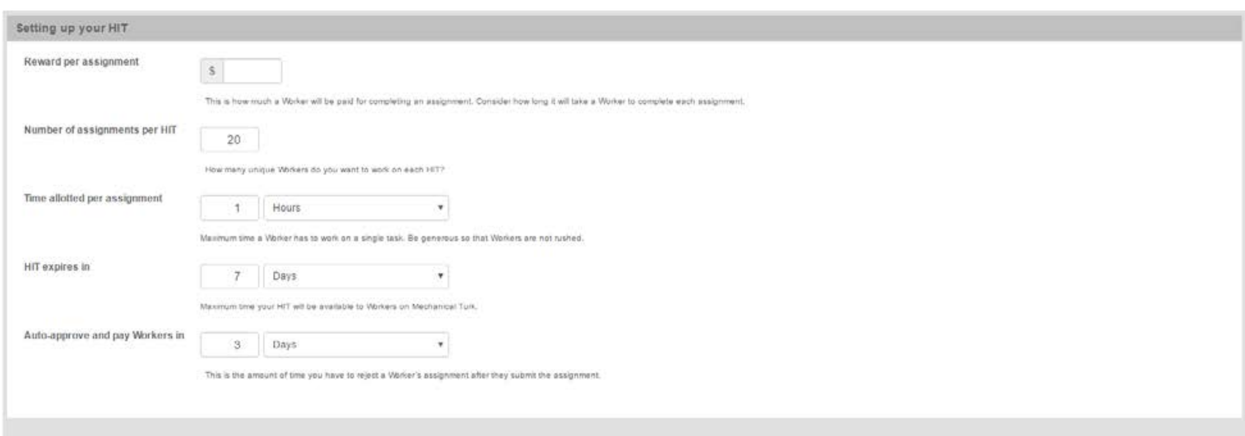


Scrolling down, you’ll see information about payment and time to complete the HIT. Here, enter how much you are paying each Worker participant in the Reward per assignment box. Next, the number of assignments per HIT should equal the number of unique Workers you want to complete the HIT. For surveys, this should equal the total number of responses you want to get from Workers.

The time allotment should be generous, rather than exactly limited to how long the survey will take. After this amount of time, the HIT will expire and Workers won’t be able to submit the HIT.

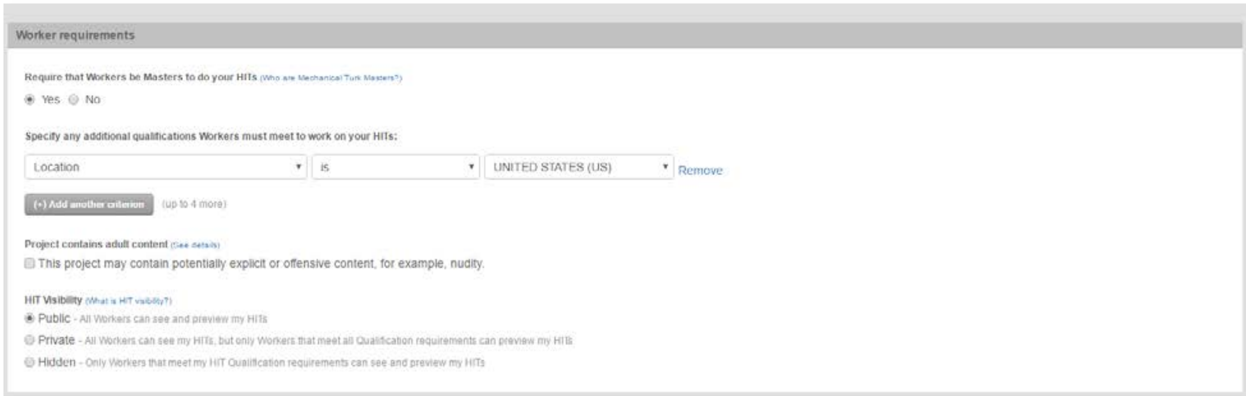
There is also a setting for the amount of time for the HIT itself to completely expire, should it still have remaining assignments that go uncompleted.

Last, there’s a setting for auto-approval. Leave yourself enough time to check out the submissions before they auto approve, but don’t rely on auto-approval as a way to pay Workers in general – this is seen as an unfair practice from their side, to complete work and have to wait long amounts of time with no approval from the Requester to be paid for that work.



Scrolling down further, you’ll see the Worker requirements section. Here, you can specify that Workers must meet certain criteria, such as being from the United States, or having a certain approval rate.

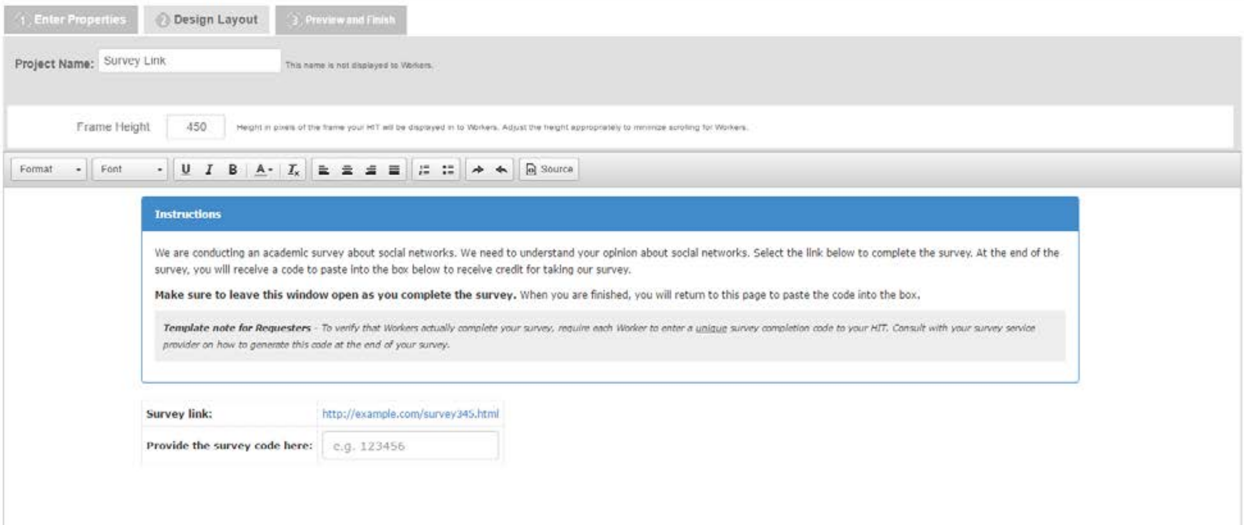
As noted in the previous section, change the default setting about Masters-only Workers. The default is “yes” (shown below) and the best option is “no” (so change this option from what is shown below). The Masters qualification is a mystery to everyone, including long-time Workers, and it costs more for no good reason!



An aside: While we’re looking at entering HIT qualifications, let’s talk about creating your own qualifications for Workers. Say you have a list of Worker IDs from Workers who took the first part of a survey in a previous HIT, and you only want these Workers to be able to do the second part of your survey that you’re posting in a new HIT. The best way to do this is to create and assign your own Worker qualification. See this “detour” in the Appendix. (If you’re setting up a HIT as we go along, save the draft before detouring!)

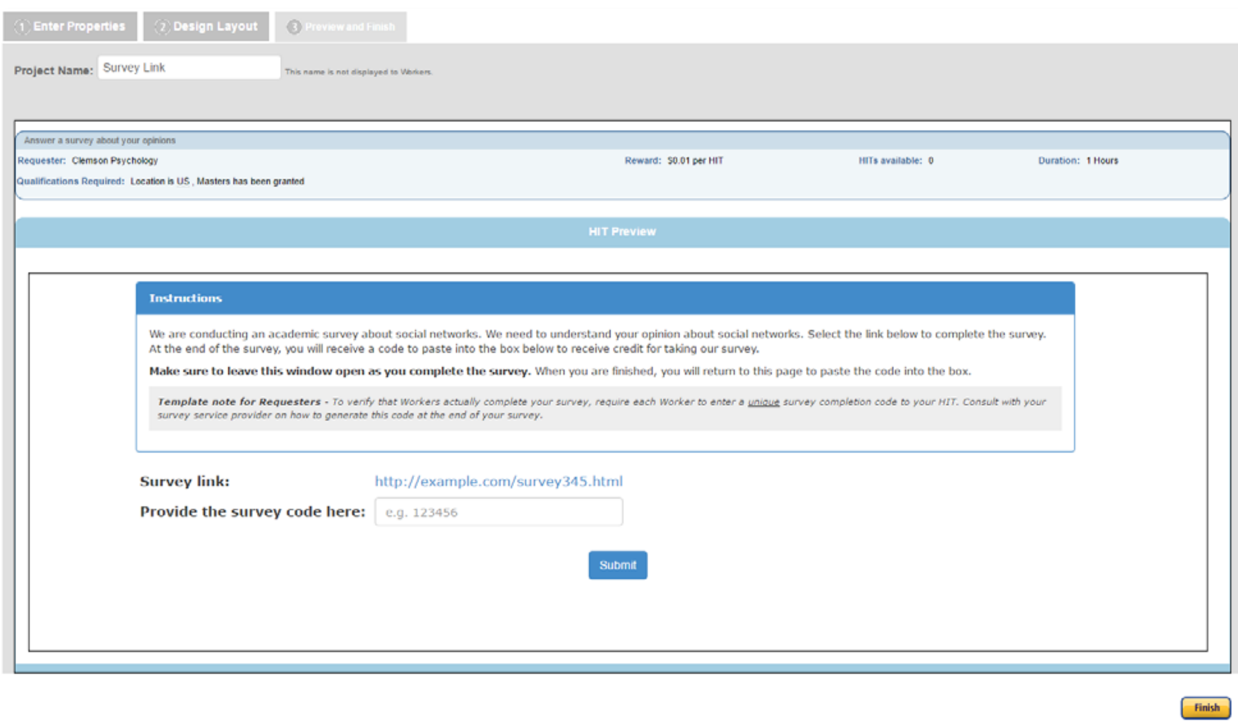
Next, on the Design Layout tab, you can edit what Workers will see when they open the HIT. Here, you can change the survey link (do make sure you put your own link in!), add a box for comments and feedback, edit the information listed, and so on. Be sure to delete the Template note for Requesters, since Workers don’t need that information (and leaving it will make you look like an uninformed newbie or careless Requester ☺).

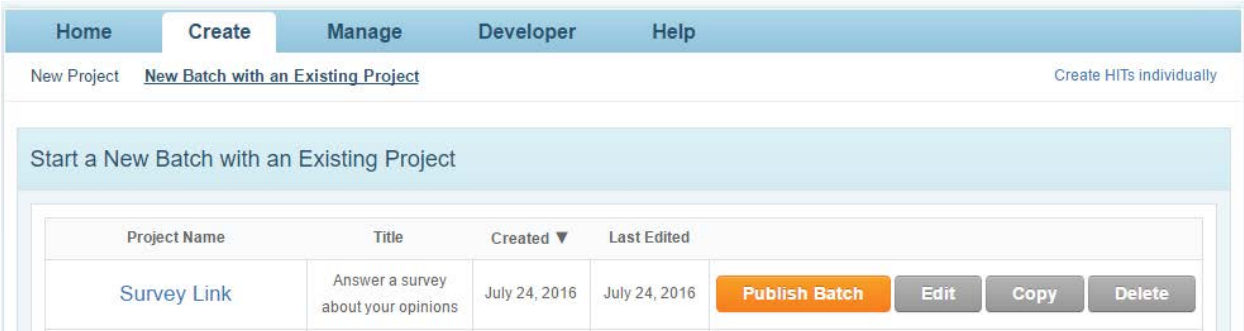
Make this area easy for Workers to navigate. Remember that they’re working on lots of other HITs, so the less time they have to spend scrolling up and down or trying to read lots of dense text to find what they need to complete your HIT, the better!



On the last Preview and Finish tab, you can preview your HIT to see what it will look like to Workers. The top part of the preview includes the information you entered on Tab 1, and this is how it will look in the list of all available HITs for Workers. The bottom part of the preview matches what was edited in Tab 2.

If everything looks good, hit Finish in the bottom right and your new HIT will show up on the Create tab.





The second way you can create HITs is by copying existing HITs and editing them. This is a really handy method when you have very similar projects over time, or want to use some of the cool features built into past HITs without the hard work of setting them up. The process is generally the same as creating a brand new HIT (you'll work on the three tabs to edit and preview the HIT), but you will access this by clicking Edit next to the HIT in the list on the Create page.

One very useful feature that you may want to copy and use is hiding the survey link until a Worker "accepts" the HIT and takes it off the market. This makes it easier to prevent any Workers completing the survey then potentially not getting paid if the number of HITs are used up before they return and accept the HIT.

You can read more about this handy code and a related coding trick to collect Worker IDs automatically (which saves Workers a step!) in this excellent blog post: http://research-tricks.blogspot.com/2014/08/how-to-transfer-mturk-workers-ids-to.html.

One other handy trick is using a Qualtrics survey to match participants against a list from earlier studies (either to include or exclude them). Check out more information on this setup here: https://experimentalturk.wordpress.com/2012/02/27/httpexperimentalturk-files-wordpress-com201203screening-amt-workers-on-qualtrics-peer-paolacci-chandler-mueller-pdf/. This process effectively does the same thing as assigning a custom qualification to Workers (see Appendix), so you do have multiple options for that process.

Please note: In any case, if there were a commandment for being a Requester, it would be: thou shalt use "Blocks" very, **very**, ***very*** sparingly. You may see this option on various menus, and you may even hear other Requesters suggest it as a way to prevent Workers from completing later HITs for you. Unless a Worker has been truly horrible and offensive and ruined your data collection gravely, do not block a Worker. Ever.

If you want to prevent Workers from completing a second part of a study (perhaps you want an independent sample in Study 2) or later studies for any reason, then use custom MTurk qualifications as described in the Appendix or the Qualtrics screening procedure noted above. Do not "block" Workers for this purpose. The reason for this serious warning is that Workers' entire accounts can get canned with just a few blocks. So if they complete a study for us and for two other universities and the researchers in all three places use blocks frequently while they run their studies on MTurk, then there goes that Worker's entire account, and everything that depends on their MTurk income. An unwarranted block is also an easy way to upset Workers, and this is news that they will very likely share with other Workers.

Before we move on from this one deadly sin of being an MTurk Requester, let's make sure we're on the same page with a pop quiz.

Question: When is the correct time to "block" a Worker?

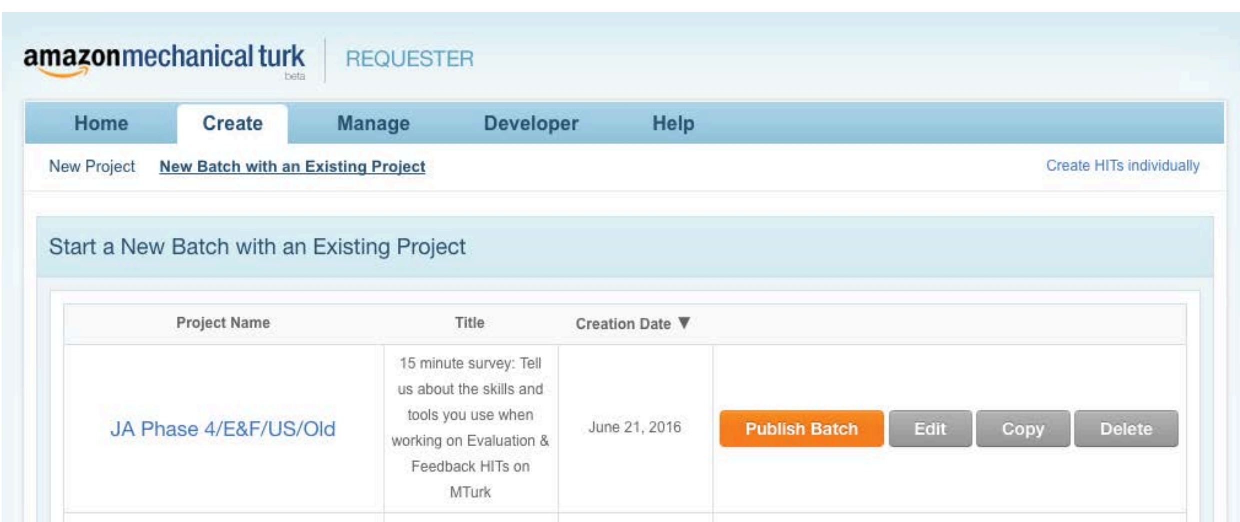
A. After they do any survey for the lab
B. When you are doing a multiple part study and don't want past Workers to participate
C. Whenever they have done too many HITs for the lab account overall
D. All of the above

Answer: Trick question! None of the above, dear reader. Please be very, very, very careful and very thoughtful about ever using the block feature.

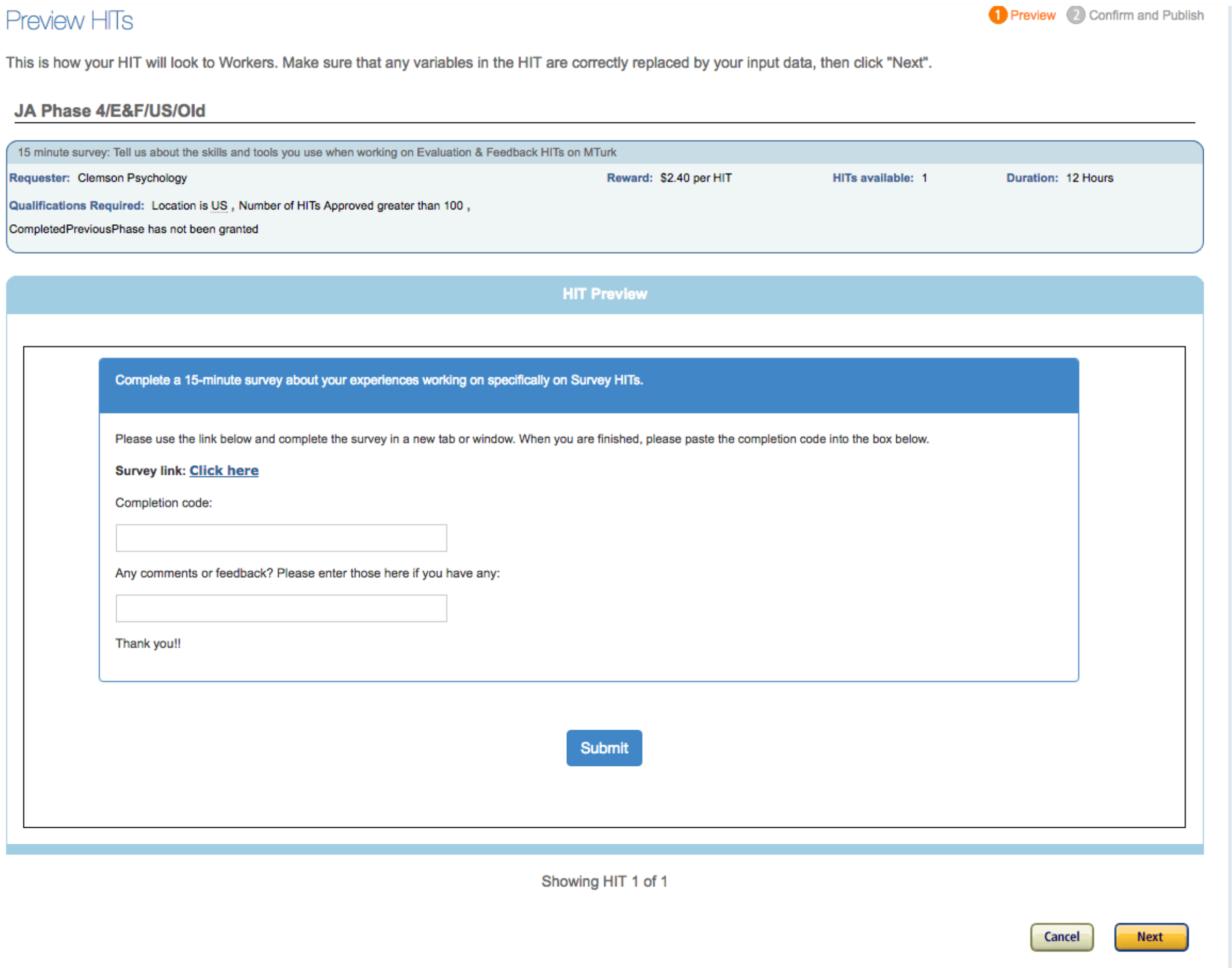
You can create your HIT before depositing funds, or while awaiting IRB approval, but make sure to amend anything on the HIT if there are any changes. This is a nice step that can be completed so you can just make any final changes and hit "Publish" as soon as you get the funds and IRB approval.

5. Publish your HIT. When you publish your HIT, this is when it goes live on MTurk for data collection to start.

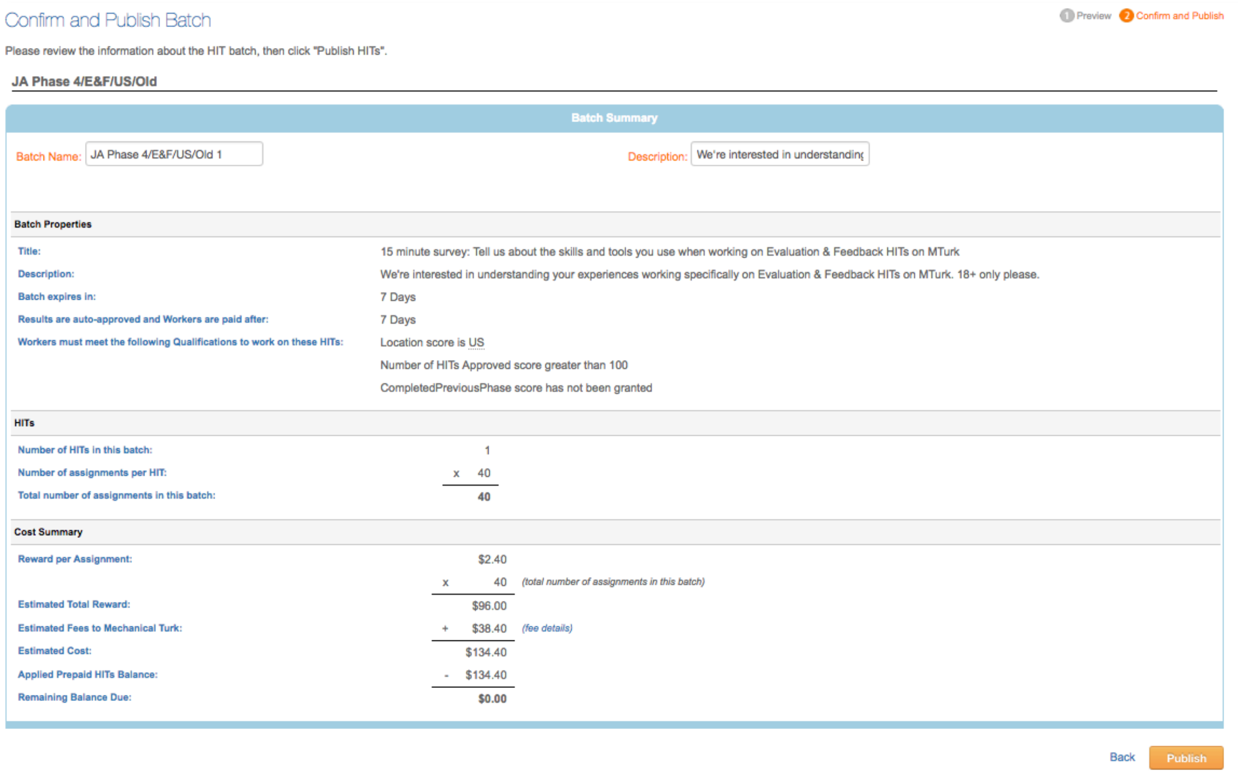
From the "Create" tab, click "Publish Batch" by the HIT you'd like to publish.



Preview everything one last time to make sure it all looks right – this is a great time to double check any survey links!



Then there's one more page to review and hit "Publish" to open up your HIT, shown below.



The HIT isn't published until you hit "Publish" on this last screen shown above.

If you find an error in your HIT, you can cancel a live batch. Note that any assignments that have been accepted by Workers up until this cancellation can still be completed and submitted to you for approval and payment. But this is a nice way to stop further data collection should you find an error in the HIT, survey, etc.

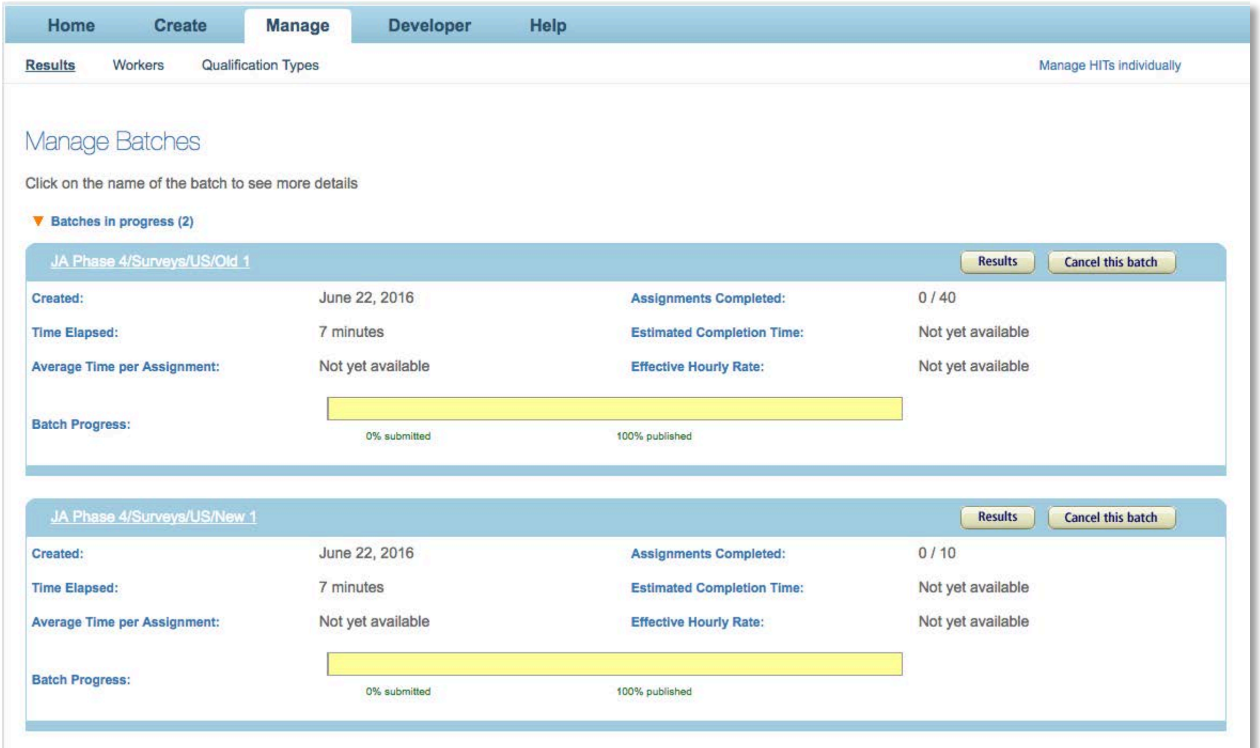
While Your Study is Running…

7. Check and respond to emails to your Requester email account. Check for messages from Workers regularly while you're running a study. This can be a really helpful way to improve your HIT design (Workers know MTurk very well!) and improve ratings of your lab as a Requester – the rating platform Turkopticon specifically includes "communication" as one of the four elements that Requesters are rated on.

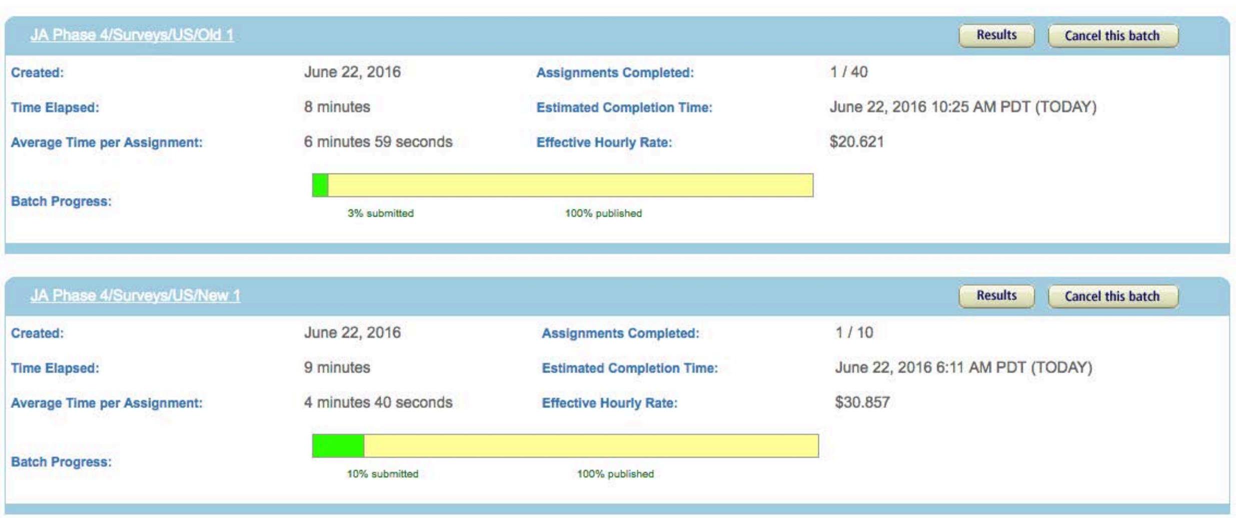
If you're not convinced yet, imagine having a question about the work you're getting paid to do, but your boss wouldn't answer any questions. Please be a good boss on MTurk! ☺

Should you need to un-reject a HIT submission, see page 4 or 24 for how to do this.

8. Approve submitted HITs. You can easily monitor how things are going on the "Manage" tab. Here, you'll see any published HITs that people are still working on or that have all been completed and submitted for you to approve. This screen auto-refreshes, which is a handy feature for keeping you up to date.

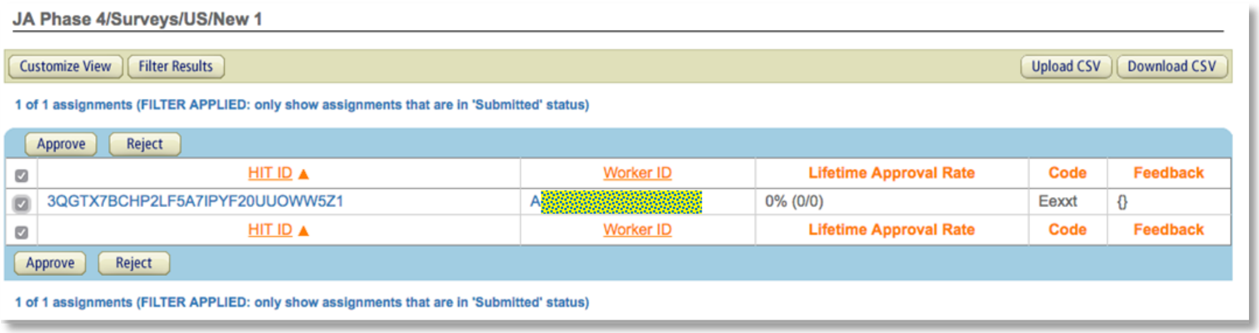


As the HITs are accepted and completed by Workers, you'll see the yellow bar start to fill with green – there's your data!



Click on "Results" to see what Workers have submitted to you through MTurk (note that you'll have to visit Qualtrics or wherever else you're hosting data collection to get or check any other data).

Workers' IDs (masked for anonymity's sake[3] – which most often[4] start with an "A" as shown below) will automatically show up here when they submit, which can be useful to compare if you ask for their Worker ID in the survey as well. In this HIT, I asked for only a completion code (see the "Code" column) and any comments or questions (the "Feedback column). I recognize my completion code, so I can check the box by this Worker and hit "Approve" to approve their submission and pay them.

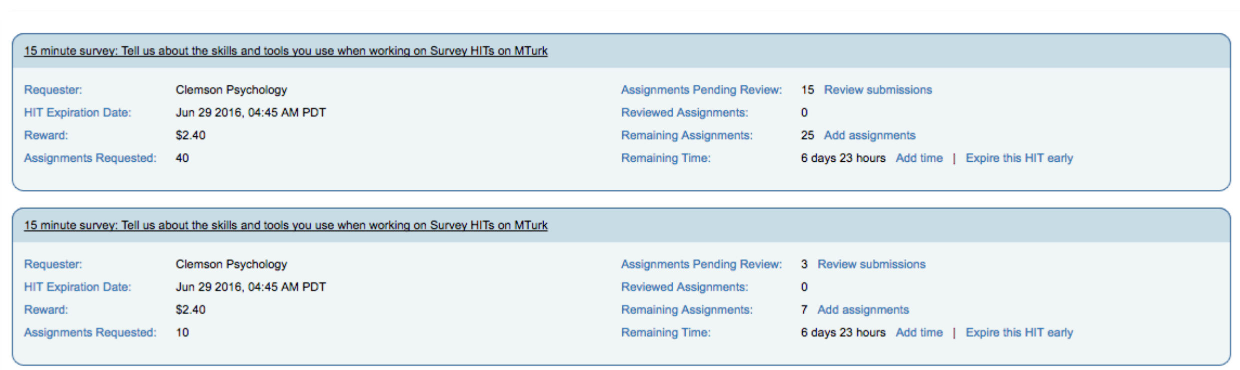


You can also work with this in a .csv format if that's preferable by using the "Download CSV" button on this screen.

Downloading this .csv is also the only way to "un-reject" work using the MTurk website. To do that, you download the HIT submissions as shown above, delete the "1" in the Reject column, and insert a "1" in the Approve column. Then, upload the updated .csv back on MTurk using the Upload CSV button shown above.

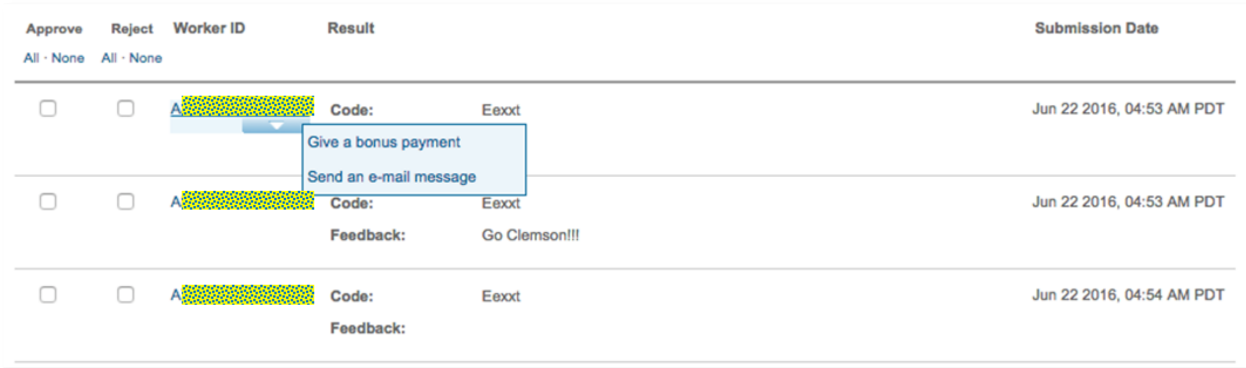
If you'd like to give a bonus to a Worker or message a Worker, then choose the "Manage HITs individually" button on the top right in the "Manage" tab.

On this page, find the HIT you're interested in and click on "Review submissions."



[3] Please protect Workers' IDs. Don't post them as a public list or file – they can most often be identified personally using their Worker ID, which compromises their anonymity as your participant. See more information about this at http://crowdresearch.org/blog/?p=5177.
[4] But not always! A few start with other letters or numbers.

You can also approve HITs from this page, but it has the added feature of letting you bonus or message individual Workers by hovering over their Worker ID on this list.



Note that collecting Worker email addresses – as you might consider for multi-wave studies – violates MTurk Terms of Service, so you'll need to plan on using this feature to message Workers for follow-up studies, or explore other options available for messaging Workers through MTurk's API.

Checklist

This checklist summarizes the suggestions throughout this document.

The Interpersonal Side

☐ 1. Budget to pay fairly.

☐ 2. Use MTurk as a Worker.

☐ 3. Check the lab email. Be responsive to issues, and be open to the fact that you may be making an error or unfair choice.

☐ 4. Keep an eye on Requester review sites.

The Technical Side

☐ 0. Don't rush a bad study onto MTurk.

☐ 0b. Make sure you've discussed your plan and timeline for using the account with anyone else who uses the account.

☐ 1. Be thoughtful about your attention checking items.

☐ 1b. If you use attention checks, decide how you'll use them.

☐ 2. Get account login info.

☐ 3a. Determine how much you will pay for Workers to complete the HIT.

☐ 3b. Deposit funds in the account.

☐ 3c. Delete the card info that autosaves every time you use it.

☐ 4. Create your HIT.

☐ 5. Publish your HIT.

While Your Study is Running…

☐ 7. Check and respond to emails.

☐ 8. Approve submitted HITs.

Resources

Here are a few other handy resources for getting to know MTurk and using it well.

Brawley, A. M., & Pury, C. L. S. (2016). Work experiences on MTurk: Job satisfaction, turnover, and information sharing. *Computers in Human Behavior*, *54*, 531-546. doi: 10.1016/j.chb.2015.08.031

- Link: http://www.sciencedirect.com/science/article/pii/S0747563215301072

Sheehan, K. B., & Pittman M. (2016). Amazon's Mechanical Turk for Academics: The HIT Handbook for Social Science Research. Melvin & Leigh Publishers, Irvine, CA.

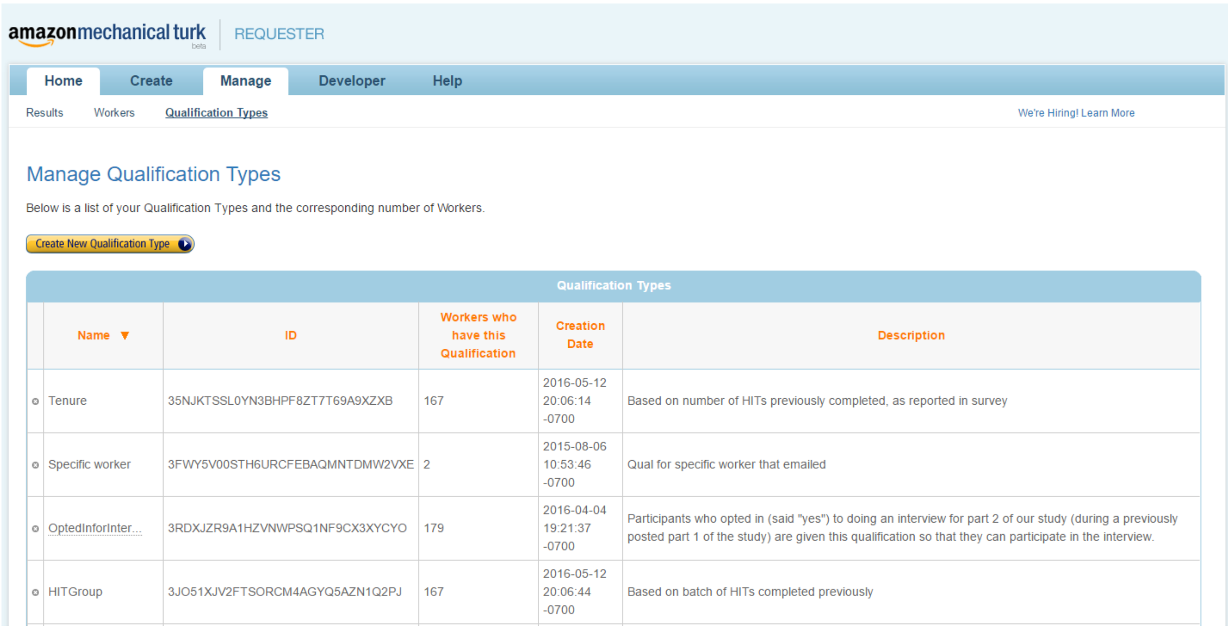
We are Dynamo's Worker-written and Worker-endorsed Guidelines for Academic Requesters

- Link: http://wiki.wearedynamo.org/index.php/Guidelines_for_Academic_Requesters

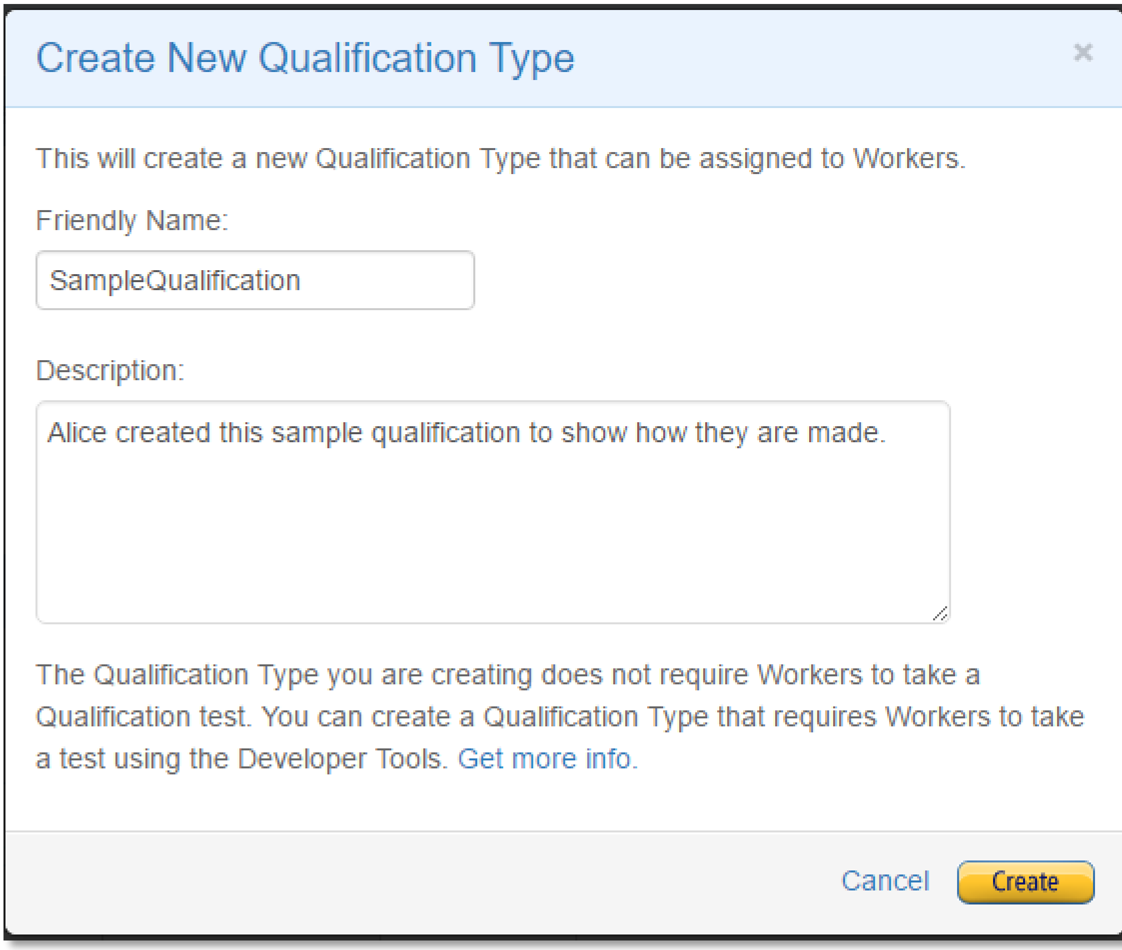
Appendix

Setting up Custom Worker Qualifications

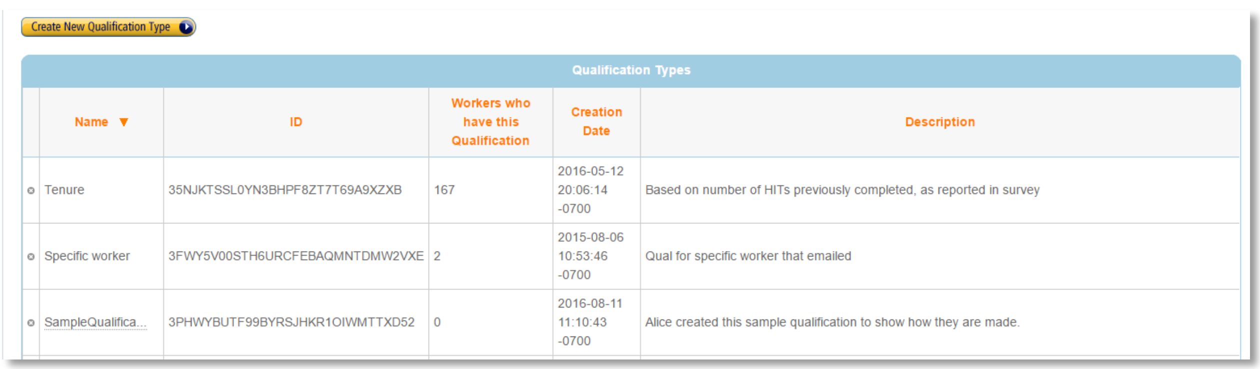
To do this, go to the Manage tab, then click on Qualification Types. You'll see the info shown below.



From here, you can click on Create New Qualification Type. Give your qualification a name that is meaningful to you and your lab, and that you don't mind Workers seeing. For example, "Part2AliceThesis" is probably good, but "Part2StudyEvilManipulationCondition" is probably not. The description is also helpful and is also viewable by Workers.



From there, hit Create, refresh the page, and you should see your qualification in the list.

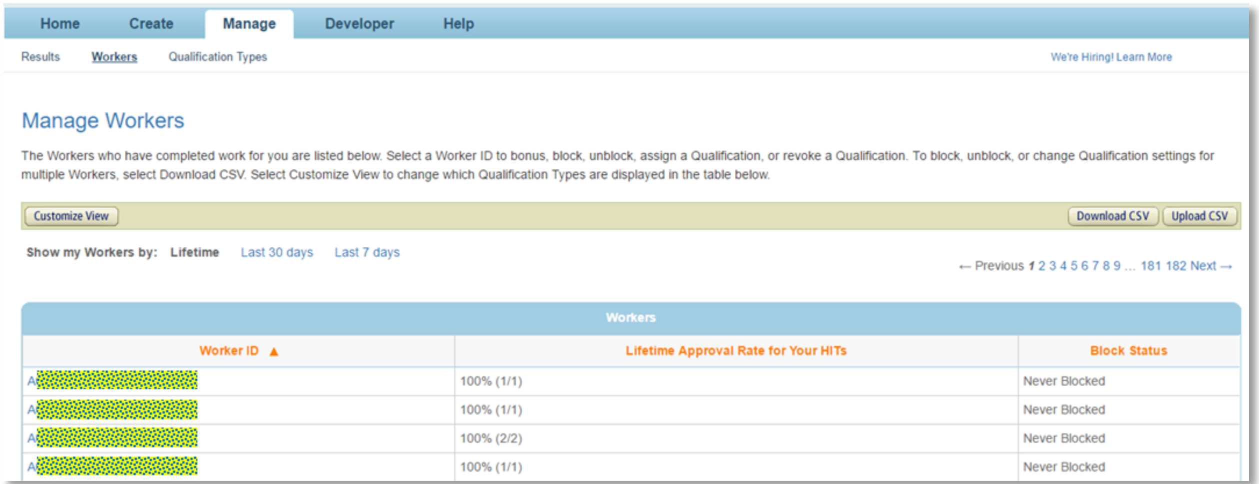

Create New Qualification Type

Qualification Types

	Name ▼	ID	Workers who have this Qualification	Creation Date	Description
o	Tenure	35NJKTSSL0YN3BHPF8ZT7T69A9XZXB	167	2016-05-12 20:06:14 -0700	Based on number of HITs previously completed, as reported in survey
o	Specific worker	3FWY5V00STH6URCFEBAQMNTDMW2VXE	2	2015-08-06 10:53:46 -0700	Qual for specific worker that emailed
o	SampleQualifica...	3PHWYBUTF99BYRSJHKR1OIWMTTXD52	0	2016-08-11 11:10:43 -0700	Alice created this sample qualification to show how they are made.

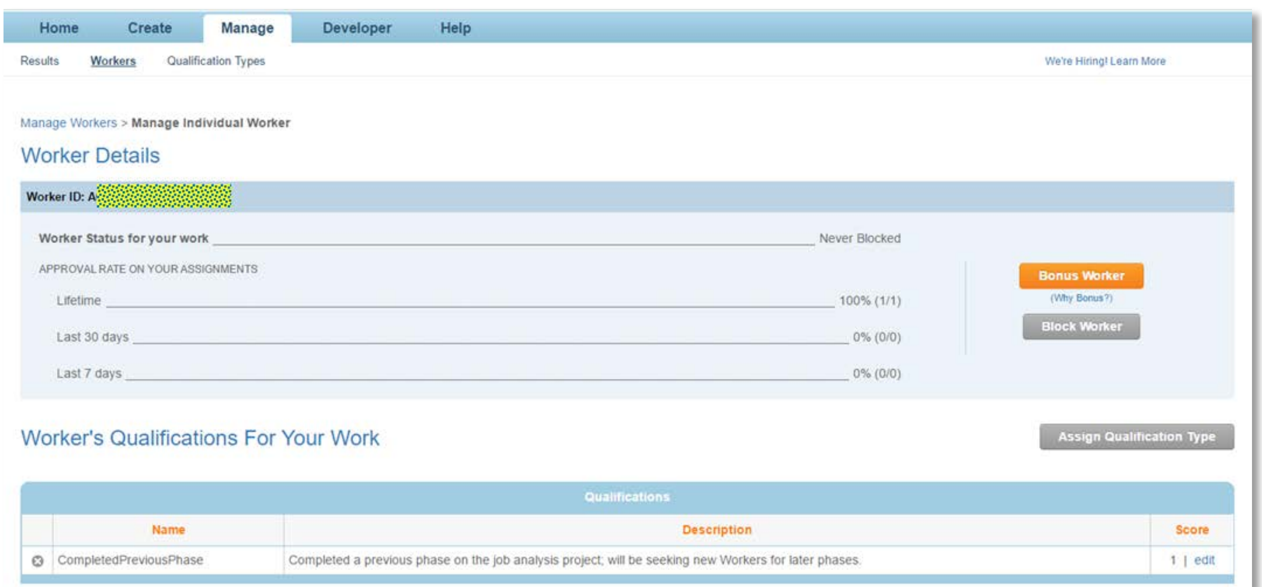
Right now, you'll see that 0 Workers have this qualification. There are two ways you can assign qualifications – to individual Workers one by one, or in bulk.

To assign qualifications one by one, have your list of relevant Worker IDs handy and head back to the Workers tab under Manage.

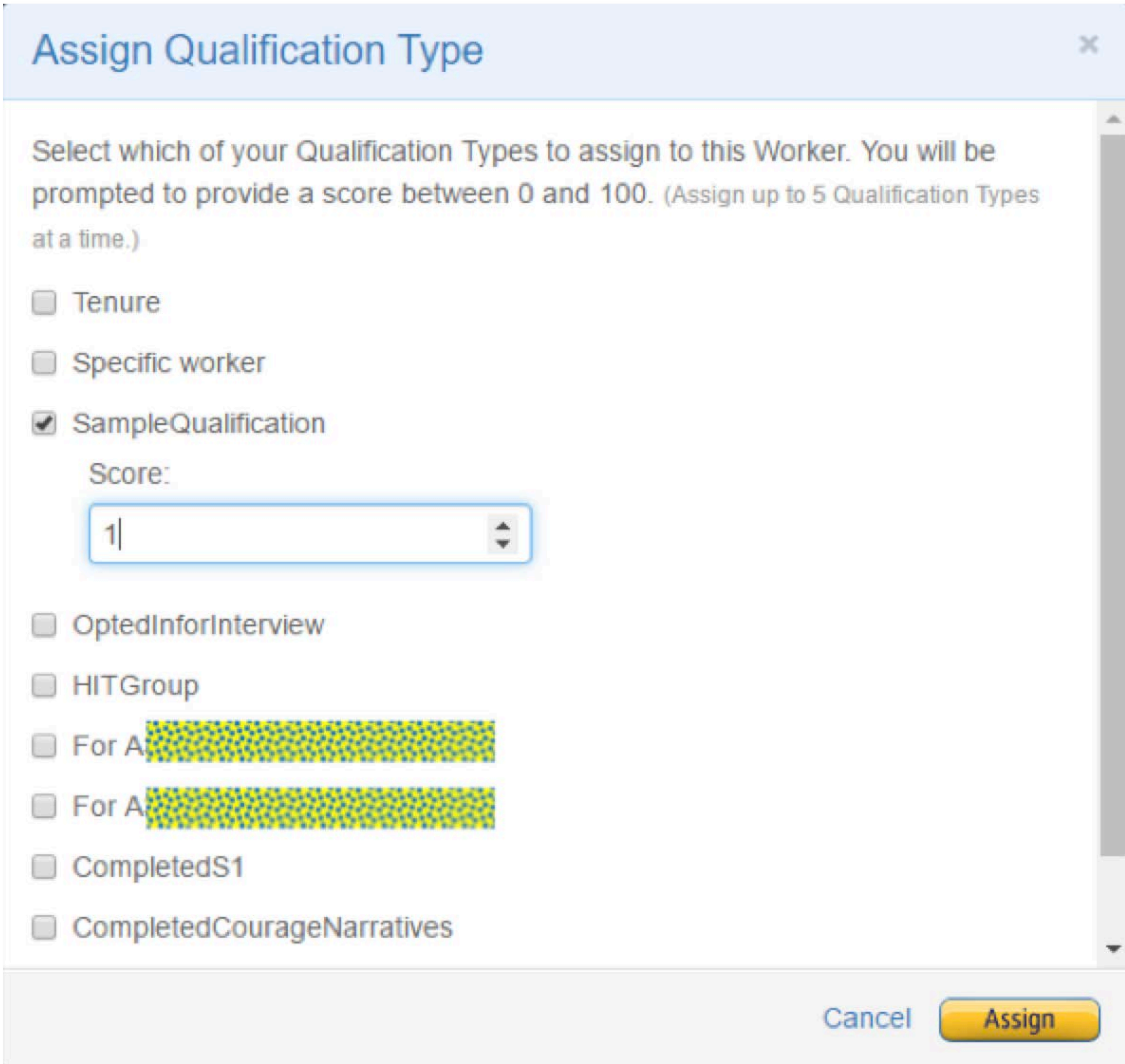


Suppose you want to assign our new qualification to the first Worker on your list of Workers. Click on that Worker ID to visit the page about their submissions to your Requester account.

Notice on the screenshot above that you can also narrow the list down to the last 30 or last 7 days – a very handy shortcut for assigning qualifications based on recent HITs.



On the page for this specific Worker, you can see that this Worker had one of our custom qualifications already. To assign them a score on your new qualification, click "Assign Qualification Type."

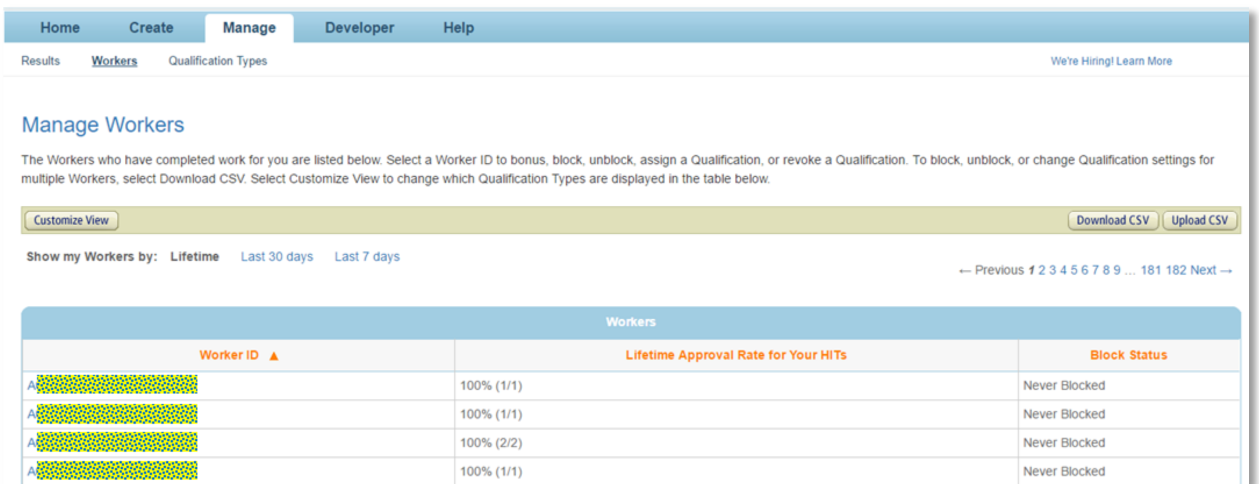


On the pop up, check the qualification you want to assign, and enter a value between 0 and 100. It can be handy to use different values to represent different things (e.g., 1 = a certain condition of the study, 2 = another condition of the study, and so on). However, in most cases, assigning a 1 (or some other selected value) may be the only value you need for all of your Workers. You can also edit a Worker's existing assigned qualification or qualification value from this menu.

In any case, remember what the values are that you use, because you will need to input them for the HIT. For example, if you wanted all Workers who opted in for an interview, you'd assign all of those Workers that qualification (OptedInforInterview) a score of 1, then specify in the HIT Properties that OptedInforInterview "equal to" 1. You can also use other logical operators like "not equal to", "has been assigned" (accepts any value for that qualification), or "has not been assigned."

There is also a convenient link to this same sort of individual Worker page from the HIT submission page – just click on their Worker ID as you review submissions. This can be a handy way to assign qualifications for multi-part studies as you approve the submissions that come in during each wave of the study.

The second, more efficient way to assign or edit custom qualifications granted to Workers is by downloading a comma separated values (.csv) file of the Workers who have submitted any HIT to your Requester account (or limit this to the last 30 days, or last 7 days using the links under "Customize View"), assigning their qualifications in that worksheet (look for the column with the qualification name that you're wanting to assign to them), and then uploading the file back to MTurk. To download and upload this file, see the links on right side of the tan bar on the Manage Workers page, shown below.



As a final note on qualifications: Make use of them! Remember to always use qualifications instead of "blocking" Workers for any research purpose, such as preventing Workers from participating in continuations of earlier studies. If there were a commandment for being a Requester, it would be: thou shalt use "Blocks" very, **very**, ***very*** sparingly. You may see this option on various menus. Unless a Worker has been truly horrible and offensive and ruined your data collection forever, do not block a Worker. Ever. See more details on pp. 19-20.