ExEC Online: Express Pack
Instructor Guide

What is the Express Pack? How long can I use it?

The ExEC Online: Express Pack is a subset of the ExEC Online curriculum designed to help you finish your Spring 2020 semester in an engaging way.

The next time you teach entrepreneurship, whether it's Fall or Spring, in-person or online, there's a comprehensive version of the Experiential Entrepreneurship Curriculum (ExEC) available for you to teach your students entrepreneurial skills in a structured, and interactive way.

Please contact justin@teachinge.org if you'd like to use ExEC's in-person or online version after June 2020!

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Getting Started

> To help with the COVID-19 online teaching transition as quickly as possible, we produced these Express Pack lessons much more quickly than we typically do. As

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a result, we'd love your help if you find typos or experience any unexpected behaviors; just contact us at help@teachinge.org and we'll get it fixed right away!

1. **Getting access to ExEC**
   a. For You
      i. Use the link in the ExEC Online: Express Pack Onboarding email you received (it's the email with the link to this document) to register for ExEC
      ii. After registering, you'll immediately be taken to the ExEC Overview for the in-person version of ExEC.
         1. You're welcome to look around at all of ExEC's lessons, but you don't want to try to use anything there this semester.
         2. Instead, use this document that you're reading now. It has everything you want for this semester.

   b. For Your Students
      i. In your LMS (e.g. Canvas, Blackboard, Moodle, D2L, etc.) ask your students to register for ExEC using the student registration link in the ExEC Online: Express Pack Onboarding email.
      ii. For example:
         1. We're going to use a couple new tools from ExEC over the next couple weeks. To use those tools, you need to register here: [insert the link to your student access from your email]"

2. **For any questions:**
   a. Contact help@teachinge.org for the fastest response.

   b. We'll also be creating a Google Group where you can ask questions/share best practices with other Express Pack instructors. Feel free to discuss anything teaching related there, even if it doesn't have to do with ExEC. Just email express-pack@googlegroups.com.

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Lessons

Problem-Inspired Idea Generation

Why Teach It?

Customers don't buy products, they buy solutions to problems – and during this crisis, people's problems have changed dramatically. This exercise will show your students a systematic way to identify new opportunities, inspired by their customer's real-world problems, that is not only helpful during times of disruption like we're experiencing right now, but will help them discover new opportunities for innovation throughout their careers.

HOW TO GENERATE GREAT BUSINESS IDEAS

Lesson Overview

The [Problem-Inspired Idea Generation](#) exercise has three major components where students:

1. Get an overview of why great business ideas come from problems, and that problems come from people.
2. Brainstorm the people they are passionate about solving problems for.
3. Hypothesize the problems of those people, which forms the basis of any customer discovery interviews and/or solution ideation.
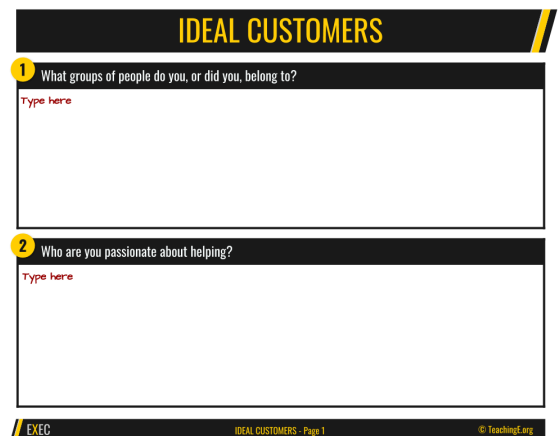

How to Use It

Make sure you and your students followed the steps in the [Getting Access](#) section of the doc

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1. Introduce the Theory

   a. There are two ways you can introduce your students to the theory that great business ideas are inspired by problems.

      i. They can read about in the to the Problem-Inspired Idea Generation

      ii. You can produce a video (either a live stream or pre-recorded) where you walk them through the principles. If it helps, you can:

         1. Summarize the introduction in Problem-Inspired Idea Generation (everything up to Step 1)

         2. Use these slides to get you started

2. Apply the Theory

   a. Every ExEC lesson includes an experiential activity. In this case, students will use the Ideal Customers worksheet to brainstorm people they want to serve, and problems they want to solve

   b. We've embedded a video walk through into the student instructions, but you're also welcome to conduct your own walk through and share that with your students - whatever works best for you.

   IDEAL CUSTOMERS

   1 What groups of people do you, or did you, belong to?
   Type here

   2 Who are you passionate about helping?
   Type here

   EXEC   IDEAL CUSTOMERS - Page 1   © TeachingE.org

3. Increasing Engagement & Connectedness

   a. If you're teaching this lesson live and using Zoom

      i. Use the Breakout Room feature to randomly assign students into rooms of 3 people

      ii. Before sending students to their breakout rooms, tell them they'll have 15 minutes to:

         1. Each student shares their Ideal and Backup customer segments with one another. For example:

            a. "My ideal customers are newly recovering addicts who feel overwhelmed when facing uncertainty every day because they may lose their job due to COVID-19 and I want to help them feel safe."

         2. Help one another brainstorm where to find people in their "Ideal Customers" segment during a period of "social distancing." For example for the newly recovering addicts example above, some places to find those customers are:

            a. Reddit forums and Facebook groups dedicated to recovering addicts

            b. Virtual AA meetings

    c. Commenters on blogs dedicated to addiction recovery
    d. Searching twitter for people using the #AA hashtag, [for example](#).

  b. If you're not teaching this lesson live, or not using Zoom
    i. In your LMS, create a discussion group called "My Ideal Customers"
    ii. Ask your students, after completing their Ideal Customers worksheet, to:
      1. Start a new thread in the discussion group sharing the full description of their Ideal and Backup customer segments. For example:
        a. "My ideal customers are newly recovering addicts who feel overwhelmed when facing uncertainty every day because they may lose their job due to COVID-19 and I want to help them feel safe."
      2. Comment on at least 3 other students' segments with ideas on where to find those people. For example for the newly recovering addicts example above, some places to find those customers are:
        a. Reddit forums and facebook groups dedicated to recovering addicts
        b. Virtual AA meetings
        c. Commenters on blogs dedicated to addiction recovery
        d. Searching twitter for people using the #AA hashtag, [for example](#).

4. Assessment

  a. The last step of the [Problem-Inspired Idea Generation](#) exercise will ask students to download a PDF copy of the file. Create an assignment in your LMS where your students can upload that file.
    i. Review the worksheets to ensure the entries for both the Ideal Customers and Backup Customers are accurate:
      1. **Role** is a title a member of that community would self-identify with
      2. **Who Feel** is a feasible emotion
      3. **Trigger** is an event that might evoke that emotion
      4. **Root Cause** is a potential underlying reason (i.e. "why?") the trigger would evoke the emotion
      5. **I Want to Help them Feel** is a neutral or positive alternative emotion to the one that the trigger evokes in the customer

  b. Alternatively, if you ask your students to participate in a discussion group, you can assess
    i. Did they post accurate (see above) descriptions of their Ideal and Backup customers in the discussion thread?
    ii. Did they provide good faith suggestions on where to find the ideal customers of at least three other students?

Interviewing Customers on Lockdown

Based on the popular [Customer Interviewing Cards](#), this exercise has been adapted to teach students how to interview customers in the midst of the COVID-19 pandemic. Hopefully this lesson will only be applicable this term, but...

> ...if you're teaching in the summer, or if the virus [returns in the Fall](#), it'll be helpful then too.

Step 1

Have your students watch this video: https://youtube.com/watch?v=7zPfhUMvNH4

> **Teaching Synchronously?** If you prefer to teach this lesson yourself during a synchronous class session, feel free to teach the principles in the video above your own way. Here are some resources that may help:
>
> - [Lecture notes](#)
> - [Sample slides](#)

Step 2

Have your students complete the [What to Ask During Customer Interviews](#) exercise.

> **Teaching Synchronously?** After students fill in their spreadsheet, play our [Objections Kahoot](#) and [Questions Kahoot](#) for a fun way to go over the answers. More details about using Kahoot are in the in-person version of this lesson [here](#).

Step 3

Give your students access to the full [Customer Interviewing Script](#) which they can use to conduct their interviews.

Financial Projection Simulator

Why Teach It?

Even in an optimal class setting, students struggle to engage with and understand the financial elements of entrepreneurship. Of course, this topic is critically important, especially during times of economic uncertainty like we're facing now.

To help make entrepreneurial finance more accessible to all students, we designed our Financial Projection Simulator to teach financial modeling, with a fun, game-like experience.

Is Your Business Model Viable?
... estimating Early Majority

Diffusion of Innovation Ratios	Optimistic	Pessimistic	Average
Early Adopter %	13.5%	13.5%	13.5%
Early Majority %	34.0%	0.0%	17.0%
EM to EA Ratio	2.52	0.00	1.26
Annual Revenue	**$561,768**	**$159,660**	**$360,714**
Annual Expenses	**$281,754**	**$281,754**	**$281,754**
Difference	$280,014	-$122,094	$78,960
Difference %	99.38%	-43.33%	28.02%

Lesson Overview

The Financial Projection Simulator asks students questions about their business model assumptions including their product's price, marketing channels, etc. Based on the answers to those questions, the simulator estimates:

- Customer Annual Value
- Cost of Customer Acquisition
- Employee salaries (including benefits & taxes)
- Etc.

After each question the student answers, the simulator updates a real-time, color-coded assessment of their business model's financial sustainability:

- **Red (Not Viable)**
- **Yellow (At Risk)**
- **Green (Viable)**.

Annual Revenue

1. Customer Annual Value

How much revenue do you estimate your company will make for each customer?

Product Price	$
The price of your product that you developed during your Science of Pricing exercise.	99

Annual Purchases	# Purchases
Number of Annual Purchases an average customer will make with you their first year.	3
For tips, expand the + here on the left side column.	
Total	**$297**

Based on your Financial Assumptions Your Business Model is NOT Viable

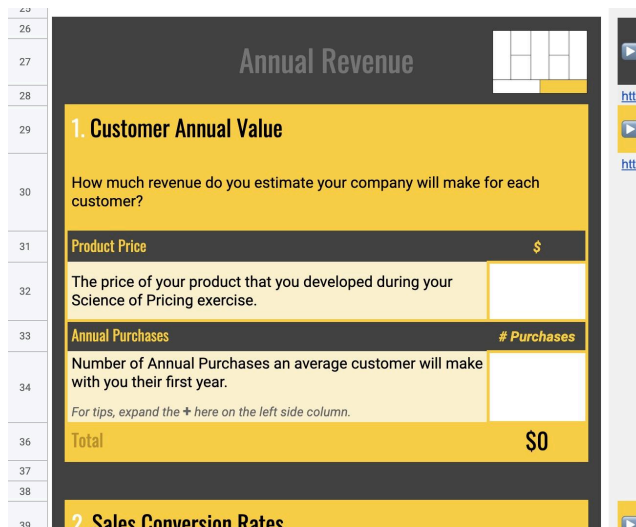**Something needs to be changed. (Better to know now than later)**

How to Teach the Financial Projection Simulator

First, make sure you and your students followed the steps in the Getting Access section of the doc

Next, decide the best way to use the tool with your class.

1. **If you're short on prep time:** Refer students to the video and written instructions in the Financial Projection Simulator exercise and have them walk themselves through using the tool.
   a. Send a link to the Financial Projection Simulator to your students
   b. Skip the Step-by-Step Instructions below and then jump to the Increasing Engagement & Connectedness section

2. **If you want to tailor the instructors for your students:** You watch the instructor walkthrough video, and then either walk your students through filling it out themselves via a live video session, or a video you pre-record that they can watch on their own time.
   a. Follow the Step-by-Step Instructions below

3. **If your schedule affords time for students to do prep work before a live session that you'd host:** A combination of the above where students walk through the tool on their own ahead of time, and then you follow-up with a lesson summarizing how to use the tool and helping students work through any questions or challenges that come up.
   a. Send a link to the Financial Projection Simulator to your students, asking them to prepare their first iteration before your live session
   b. Follow the Step-by-Step Instructions below to prep for your live sessions

Step-by-Step Instructions

Step 1: Open the Financial Projection Simulator (Approx. time to complete: 2 min)

- Have students go to this URL: http://bit.ly/expressFPS
- Scroll down to Step 1 and click the yellow "Financial Projection Simulator" button to open their personalized spreadsheet

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Step 1

Click the button below to open your Financial Projection Simulator:

FINANCIAL PROJECTION SIMULATOR

Step 2: Hypothesized Price (2 min)

Have students start by entering the price they hypothesize they can charge for their product.

If they plan to have multiple products, have students either:

1. Focus on one product for now
2. Average the price of multiple products that they might sell, or
3. Replicate this spreadsheet and complete it for a second product, combining the revenue expenses from that second product with this first product.

Annual Revenue

1. Customer Annual Value

How much revenue do you estimate your company will make for each customer?

Product Price	$
The price of your product that you developed during your Science of Pricing exercise.	149
Annual Purchases	**# Purchases**
Number of Annual Purchases an average customer will make with you their first year.	12
For tips, expand the ✚ here on the left side column.	
Total	$1,788

Step 3: Annual Purchases (2 min)

Next, ask students to estimate the average number of purchases a new customer will make in a year.

- For a monthly subscription business, that number may be anywhere from three to 12.
- For a coffee shop, it may be 50 or higher.
- For a company building some long lasting hardware product, it may be one.

Step 4: Top-Down vs Bottom-Up (3 min)

Next, tell students they're going to estimate the number of customers they can reasonably expect to acquire from a bottom-up financial projection approach.

Traditional revenue projection takes a "top-down" approach where you estimate the total size of a market, often referred to as your Total Addressable Market (TAM), and assumes you will convert some small percentage of that large number into customers (e.g. "The market for pet food is $100 billion world wide. If our dog food subscription service captures just 1% of the market, we'll create a $1 billion dollar business.").

This top-down approach to market size estimation has been de-emphasized by many early-stage entrepreneurial communities because it is exceptionally difficult to assess with any accuracy, and because capturing even tiny fractions of Total Addressable Markets is often far more difficult than entrepreneurs anticipate.

Instead, this exercise will show them how to estimate a startup's revenue potential using the arguably more realistic "bottom-up" perspective that more closely represents the Serviceable Obtainable Market (SOM). This approach asks them to estimate:

1. How many potential customers can you actually reach with your marketing efforts?
2. Of those that engage with your marketing efforts, what percentage will become paying customers?
3. What is the Total Lifetime Value of a customer to your company?

Tell your students that when they multiply those together they'll get a more realistic sense of whether a business opportunity is feasible. If it's not, they'll want to know now so they can iterate their business model.

Step 5: Channel Estimates (12 min)

Ask students to:

- Estimate the number of customers they'll reach using three potential marketing channels
- The percent of people who will engage in their marketing activities, and
- The subset of the engaging potential customers that will ultimately convert to customers.

These percentages will normally fall in the range of point 5 to 10%, and most often fall within the range of 1 to 5%.

This will be the most challenging aspect of the lesson so as your teams estimate their marketing channel sizes for their three channels, go around the room checking in on each team and making sure at least one of their channel estimates makes sense.

Also refer to the Teaching Financial Projection Demonstration Video for examples on how to estimate the total number of people that a channel can reach.

Step 6: Salaries (5 min)

Tell students they'll next estimate the expenses associated with their business.

Students will start by estimating their personal salaries as founders of the companies - in other words how much money they would need to make an order for this business to be personally worth building.

Next ask teams to estimate any additional employees they'll need, and they can use GlassDoor to estimate those salaries.

3. Salaries

What will your future full time employees salary (and yours) be?

Founders' Salary	Salary ($/year)	# Founders
What is the minimum amount of money you, and the rest of your founders will need to make, to make it worth starting this business?		

Roles & Job Positions *For tips and detailed calculations, expand the + here on the left side column.*	Salary ($/year)	# Employees
Software Developer	65,000	1
Marketing Manager		
Graphic Designer		
...		
Number of employees and owners		1
Subtotal - Salaries		65,000

Taxes	%
Consider about **33%** of the net salary (25% of gross salary) for: Federal taxes, Social Security and Medicare taxes.	33.33%

Step 7: Real Estate (3 min)

Next, students will estimate the real real estate costs of either a retail or office space.

You can demonstrate to your students how to look up local region retail and office space rates in your area.

We've also provided some examples in collapsible menus.

4. Real Estate

How much space do you estimate your company will need and how much will it cost?

Office Space	# Employees	sq.ft/employee
Consider about **200** square feet per employee. If you won't need an office then set **0** sq.ft/employee. *For specific and detailed calculations, expand the + here on the left side column.*	1	

High Density (80 – 150 square feet per employee): Majority open seating with rows of small desks. May have a few private offices. Often seen in companies that house many different teams within the same space, as well as for sales, technology, coworking or customer support offices.
Average Density (150 – 250 square feet per employee): Mix of open cube or desk space and private offices. Traditional office layout.
Spacious (250 – 500 square feet per employee): Majority of the space consisting of large private offices. Historically seen in law firms.

Step 8: Customer Acquisition Costs (5 min)

Next, students should estimate the customer acquisition costs for each of their marketing channels.

Students have three choices for entering these numbers:

1. They can select an average customer acquisition cost from the drop down menu provided (pictured at right).
2. They can use the detailed channel and acquisition cost tables on the "Channel Estimates" worksheet tab of the spreadsheet (pictured below):

3. They can calculate and enter their own value manually.

Step 9: Cost of Goods Sold (10 min)

Finally, teams should estimate what it will cost to build and deliver their solution including any raw materials, shipping, etc.

Here teams should itemize each of the expenses they'll need to actually produce and deliver their solution.

Step 10: Results & Iteration (10 min)

When students have finished entering in their revenues and expenses, the simulator will project their potential revenues vs expenses.

There simulator will four potential results:

- **Red**: none of the team's annual revenue projections exceed their projected expenses.
- **Yellow**: only the optimistic revenue estimates exceed their projected expenses.
- **Grey**: the optimistic and average revenue estimates exceed their projected expenses.
- **Green**: all of their estimated revenue projections exceed their projected expenses.

Summary — Panel 1 (Red)

Summary
Is Your Business Model Viable?
... estimating Early Majority

Diffusion of Innovation Ratios	Optimistic	Pessimistic	Average
Early Adopter %	13.5%	13.5%	13.5%
Early Majority %	34.0%	0.0%	17.0%
EM to EA Ratio	2.52	0.00	1.26
Annual Revenue	$0	$0	$0
Annual Expenses	$106,165	$106,165	$106,165
Difference	-$106,165	-$106,165	-$106,165
Difference %	-100.00%	-100.00%	-100.00%

Based on your Financial Assumptions
Your Business Model is NOT Viable

Something needs to be changed.
(Better to know now than later)

Annual Revenue vs Annual Expenses

Summary — Panel 2 (Yellow)

Summary
Is Your Business Model Viable?
... estimating Early Majority

Diffusion of Innovation Ratios	Optimistic	Pessimistic	Average
Early Adopter %	13.5%	13.5%	13.5%
Early Majority %	34.0%	0.0%	17.0%
EM to EA Ratio	2.52	0.00	1.26
Annual Revenue	$1,081,944	$307,500	$694,722
Annual Expenses	$874,928	$874,928	$874,928
Difference	$207,016	-$567,428	-$180,206
Difference %	23.66%	-64.85%	-20.60%

Hmm...

Based on your Financial Assumptions
Your Business Model is NOT fully Viable

Something needs to be tweaked.

Annual Revenue vs Annual Expenses

Summary — Panel 3 (Green)

Summary
Is Your Business Model Viable?
... estimating Early Majority

Diffusion of Innovation Ratios	Optimistic	Pessimistic	Average
Early Adopter %	13.5%	13.5%	13.5%
Early Majority %	34.0%	0.0%	17.0%
EM to EA Ratio	2.52	0.00	1.26
Annual Revenue	$1,636,265	$465,044	$1,050,654
Annual Expenses	$364,707	$364,707	$364,707
Difference	$1,271,557	$100,336	$685,947
Difference %	348.65%	27.51%	188.08%

Congratulations!

Based on your Financial Assumptions
Your Business Model is Viable

Annual Revenue vs Annual Expenses

We recommend encouraging teams to continue tinkering with their financial projections until they achieve the fully "green" or sustainable estimates. However, you are welcome to use a more relaxed standard, if you like.

Step 11: Success Metrics and Experiments (2 min)

Tell students the numbers they come up with here will determine the success metrics for their future experiments, for example, their price points, conversion rates and salaries, so it's important they make sure they make sense before proceeding.

Tell teams that if they can't find a way to make their business model financially sustainable now it may be disappointing, but it's far better to know now and make changes necessary before they've invested time and money executing a plan that is doomed to fail.

Invite students to continue working on their financial projections outside of class and come back to the next class with a proposed sustainable financial model ready to design their experiments with.

Increasing Engagement & Connectedness

In online classes, it can be helpful to take explicit steps to increase engagement. Here are some suggestions for this lesson:

If you're teaching this lesson live and using Zoom, after walking students through the tool and having them complete their first iteration, use the Breakout Room feature to have students form breakouts with their teammates. Within their teams, they should collaborate to collectively come up with the most feasible, yet viable, financial model together. When they are finished, they should update each of their spreadsheets to reflect their preferred model and join the main meeting room. As people return from their breakout rooms, ask students to share any challenges or questions that came up.

If you're not teaching this live, or not using Zoom, have students set up a virtual meeting with their teammates where they collaborate to create the most feasible, yet viable, financial model together. Optionally, when they are finished with their meeting you can ask them to post to a discussion group:
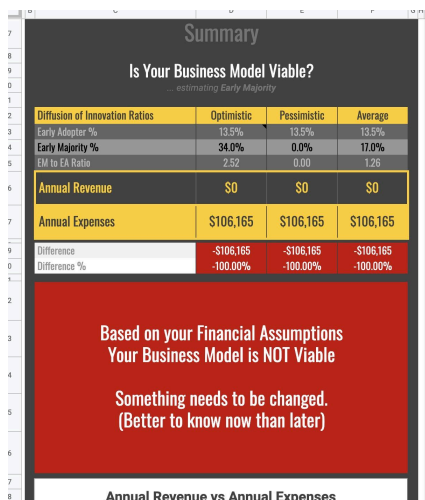
1. The biggest challenge the encountered getting their financial model to become viable
2. What number they've hypothesized that they are most worried about being correct (e.g. price point, cost of goods, etc.)

If your students aren't working teams, you can invite them to set up a virtual meeting or breakout room in groups of 3 to each summarize their financial models with each other and solicit suggestions on how to improve them.

Assessment

If you'd like to assess student's use of the Financial Projection Simulator we recommend asking students to write up a reflection on their experience using the tool including:

1. A screenshot of the summary section of their model, which will most likely be red/not viable. For example:
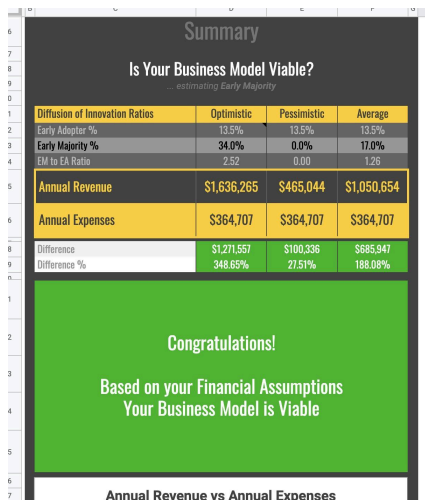

2. Answers to the following questions:

a. *Before completing the Financial Projection Simulator, I believed…*[insert a description of the major assumptions of the business's financial model] (e.g. "I believed that working parents would pay a one-time fee for on-demand pediatrician house calls").

b. *After completing the Financial Projection Simulator, I learned that…*[summary of learnings] (e.g. "One-time payments would not be financially sustainable - we'd have to charge exorbitant amounts ($670+) for each house call. Instead a monthly subscription model ($99/month) that included other value-added services like a real-time advice nurse, along with per-visit fees ($199) could be sustainable."

c. *Therefore we'll be changing the following elements of our business model…*[either a written summary of all of the elements of their business model that changed or an updated Business Model Canvas].

3. A screenshot of the summary section of their final, viable, Financial Projection Simulator. For example:

4. A link to their final spreadsheet

When assessing, you'll be looking for:

● (50%) A good faith effort to complete the spreadsheet accurately:
  ○ Numbers are completed
  ○ All hypotheses are within reason (e.g. within an order of magnitude of feasible)

● (50%) Answers to each of the reflection questions demonstrate the student used the tool to improve their business model

60 Minute MVP

The key to thriving in the face of high uncertainty and limited resources is efficient experimentation. This exercise will show your students how to quickly launch a Minimum Viable Product (MVP) to measure demand for their products/services. Plus, even outside the entrepreneurial context, in a future where online, remote-enabled work will likely be in demand, this is a great opportunity for students to learn skills like website development, animated video creation, etc.

Step 1

Build the landing page, explainer video, and integrate pre-orders (or email collection) by doing the exercise yourself.

Your students may have technical questions during the exercise and doing the exercise will help you answer those questions (plus it's fun).

Step 2

Have your students work in teams to complete the 60 Minute MVP Exercise. They should be able to do their work remotely by simply sharing the credentials for their Wix account.

> **Teaching Synchronously?** Assign students to breakout rooms and give them an hour to complete the activity. Let them know they can leave their breakout room to join you in the main room if they have any questions.
>
> Give student reminders every 15 minutes of how much time they have left, as well as a 5 minute, 3 minute and 1 minute warning. Constantly remind students that for MVPs, "Done is better than perfect!"
>
> When the hour is over, ask each team to:
>
> ○ Post a link to their page in the chat
> ○ Screen share their landing page and make a pitch for people to share or pre-order

Teaching Asynchronously? Ask students to spend 60 minutes building out their MVP and then post their links to a discussion group.

(Optional but fun) Create a google form where you ask each student to look at all of the pages in the discussion group and vote on the landing page they think conveys the best "value proposition" (i.e. solution to a problem). Give the winning MVP something special (e.g. recognition, extra credit, etc.).

That's It!

Thanks for checking out the ExEC Online: Express Pack. We hope these lessons are helpful and If you have any questions or suggestions about this lesson, please feel free to contact us at help@teachinge.org.

Want to use these in Summer or Fall?

Drop us a line help@teachinge.org. We have a full online curriculum that includes not only these exercises, but 20+ more just like them covering a wide range of topics.