
# The Primary LINKS Advantage: Customization

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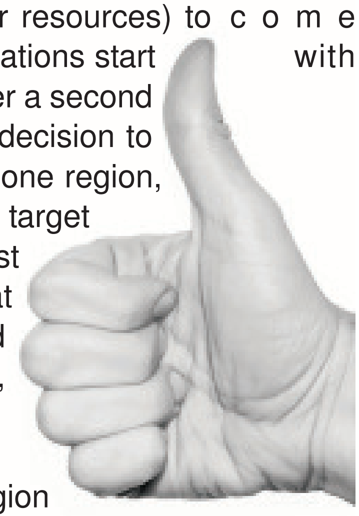
One major selling point about LINKS that I have proclaimed to professors and businesses alike is the simulation's ability to be uniquely customized. Whether this process occurs at the beginning or during the simulation, LINKS is exceptional in that instructors can create a variety of different environments that are applicable to almost any teaching situation. For example, your simulation can be tailored to support private-label branding, raw component cost increases, weather delays, economic downturns, rapidly changing customer preferences, changes in regulatory policy, tax increases, and many other real world scenarios. Seemingly, if you can dream it, LINKS can simulate it. This customization is what makes LINKS simultaneously extraordinary and pragmatic.

While few instructors take a heavy customization approach, I find it to be extremely useful and refreshing. Every semester, I include a list of special requests with my sign-up document. These requests are detailed instructions about both the beginning structure of the LINKS industry and the future progression of that same industry. Of course, there are certain classroom limitations that will influence these instructions on a semester by semester basis. The most significant limitation is the number of students to whom the simulation is administered. I have conducted simulations with groups (firms) ranging from an N of one to five. Obviously, based on sheer workload, the fewer number of students in each group inhibits the total overall number of significant changes that should occur during the simulation. These "curveballs" (as I like to call them) test participant's decision making skills in the midst of turmoil, whether they would be economic, environmental, or technological disturbances in the marketplace. While only one or two of these disturbances may be appropriate during a simulation that exhibits small numbers in each group, these small numbers should not deter an instructor to establish an overall unique simulation scenario before each administered simulation. In any scenario that you might encounter during LINKS, whether with small or large groups, you might try some of the following customization strategies.

First, an instructor can always rename the regions in the LINKS marketplace. While this is a very small change, it provides one major benefit, especially in the academic arena. Students are accustomed to using their resources, which include talking to students who have taken the course in previous semesters. Changing the names of the regions provides a deterrent from student's assuming regional characteristics across semesters. For example, the standard simulation scenario is the same for Region 1 from one semester to the next. As the instructor, if you choose to change the name of Region 1 from "USA" one semester to "Florida" the next semester, then students who discuss the simulation across semesters are less likely to use strategies from previous classes because they will assume that the regional characteristics are different. Therefore, their strategies will have to differ as well.

Secondly, instead of using the art of deception by changing the names of the regions, you can change the actual characteristics of each region. This is a personal favorite of mine. At the beginning of each simulation, I include a list of the optimal starting configurations for alpha and beta raw matwerial levels for each region. This allows me to set up many intriguing scenarios that I expect to play out during the course of the simulation. For example, I will distinctively differentiate one region for one of the products from all of the other regions. I purposefully do this to set up a niche market, anticipating that there will be minimal competition in that market because it is such an outlier. Inevitably, one firm will target this extremely rich (again, customized to be this way) niche market and make tremendous profits with minimal competition. Then competing firms are left with the question to abandon a current strategy to compete in this niche market or consider other possible competing strategies.

One of those strategies could include waiting on the technology (and/or resources) to come available in which that company could launch a third product (standard simulations start with two, Hyperware and Metaware). This third product can be configured as either a second Hyperware or Metaware product. In this scenario, firms are faced with the decision to possibly configure the product to compete against the niche product in only one region, to possibly configure to a private-label brand in an attempt to mass-market, to target another possible untapped market, or possibly stay status quo and not invest their capital into a third product. Meanwhile, experience has taught me, that launching a third product in any industry also requires changing other standard limitations in the simulation, like increases in capacity, production limitations, product introductions, and product reconfigurations.



Another one of these strategies could include the introduction of another region or two. However, the number of new regions should highly depend on the number of firms in the simulation. If there are five or fewer firms, I would highly recommend limiting the number of regions to a maximum of four, especially if there are only two available products. Otherwise, the firms become too dispersed and limited competition provides for a dull and limited learning experience. On the other hand, simulations that have more than five firms and more than two products can support up to five or possibly six operating regions.

Next, I think it is important to address the length of the simulation. In my class, LINKS is integrated into the course throughout the entire semester spanning twelve decision periods. First, I should note that I teach the capstone class in marketing. Given that fact, I set very high expectations in class on the first day. I immediately illuminate the time commitment that LINKS will take both in- and outside of class. To reciprocate value to the student for their time commitment, LINKS is worth 50% of their final grade in my class. However, I spend an extraordinary amount of time teaching LINKS before the simulation is ever initialized. In fact, we spend the entire first three weeks of class reviewing the manual, discussing in detail each volume driver and outlining each significant cost structure for their future firms. We discuss pricing strategies across products, regions, and channels. We also evaluate service and marketing decisions in context with hypothetical scenarios in which uncontrollable factors will moderate their expected outcomes. After this review, students complete an extensive exam about the LINKS environment before the ever embark on the journey. This exam includes a closed note-closed manual section of multiple choice questions from the manual. The closed portion of the exam keeps them accountable for reading the manual throughout the first few weeks. Then, an open note-open manual portion of the exam is supplied following the first section. This portion includes math problems and application questions. The goal of this exam section is to teach them how to use their manual which I explain very early in the semester is their life-line for the rest of the class. Per my personal philosophy, the exam immediately sets precedence for the student for the natural order they should take in trying to answer a problem in the LINKS environment. That is, use the manual first, check the website second, and if all else fails, come ask me last. On a side note, consultation during class time or during office hours is free. Outside of those two times, consulting cost a premium consulting fee (another customization that you have the power to control through the LINKS instructor's PC).

Finally, wrapping up the discussion on the length of the simulation, I like to expose my students to a full three years worth of decisions. I feel like this provides all students the length of time they need to extract the full value of a simulated learning environment. However, to do that, you need these types of customization structures in place so that the simulation doesn't become boring and overkill. A timeline that I use in my class is to initialize the first three quarters. Students, arranged in groups after the exam (note: I use exam scores, ACT scores, GPA, and some personal input from students to create seemingly fair teams), take control of their firms beginning with Quarter 4 decisions. Product development decisions (i.e. reconfigurations) are not allowed until Quarter 6 decisions. This allows the students' time to gather two quarters worth of research to help them determine appropriate strategies for their specific target markets (i.e. regions). Only one reconfiguration is allowed at first, so the students must make a strategic decision whether to reconfigure Hyperware or Metaware first in Quarter 6. Then, they can reconfigure the second product in Quarter 7. Next, the first curveball comes in Quarter 8. It could include any of the scenarios discussed above, including a third product, fourth region, cost increase, shipment delays, etc. Then another curveball could come in Quarter 9 or 10. Next, I personally shut down the simulation for almost three weeks after Quarter 10. This delay gives the students' time to put together a marketing plan for the final year of the competition (Quarters 11-14). This plan is communicated in both written and oral form. The oral presentation is done in front of a corporate board of local business people and other current faculty. It is intense and nerve-wracking for the students, but an invaluable experience where they defend their own decisions and are held accountable for those decisions. After this experience, which is about two weeks before the end of the semester, students are then left to make two decisions a week for the last two weeks of class. Because students are very familiar with the decision process at this stage of the game, two decisions a week is not overwhelming. In fact, they occur fairly quickly, especially considering they already have a marketing plan in place to assist with those decisions. The final run in Quarter 14 is run as a double run (i.e. Quarter 15 is replicated with the same decisions from Quarter 14). This double run provides me with a long-term indication for success for each of the firms, which helps to complete the final objective and subjective evaluations for each firm. This timeline for LINKS works very well with other course objectives, including financial analyses and actual case studies. Typically, one class a week is spent on LINKS while the other class period is spent outside of LINKS on other class material.

This timeline in my class would not be possible without the ability to extremely customize the LINKS simulation. While this may seem like a lot of work for each individual professor, I am confident that the effort is worth the outcome. There is no other class in which I have received such positive teaching evaluations. Additionally, every year I receive email from graduated students who speak highly of their LINKS experience. Comments range from" I miss your class" to "I used LINKS during my interview today" to even texts that occur during their CEO's presentation to the company that "remind them of quarterly output from LINKS." I am convinced that there is no other teaching tool that prepares your students more for the real world than a business simulation. Furthermore, customization of that simulation provides a more life-like and personal experience that only enhances their learning. And finally, no other simulation is as customizable as LINKS. If you are not taking full advantage of LINKS through customizations, then you really should.

For more information regarding customization strategies in LINKS, feel free to contact Dr. Kyle A. Huggins at hugginka@jmu.edu.