

The State of Supply Chain Education: Less Theory, More Practice Needed

Findings from ChainLink Research Survey on Supply Chain Education Requirements for 2011

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January, 2011

Supply Chain Education Today—Improvements Needed

ChainLink Research recently conducted a survey on the state of supply chain education and needs for 2011. As shown in Figure 1 below, people feel lukewarm about how well we are doing in supply chain education. Are existing supply chain education programs covering the right subjects and with good content? *Sort of*. Do they have great instructors? *Not really*. And are courses convenient to attend and reasonably priced? *No!*

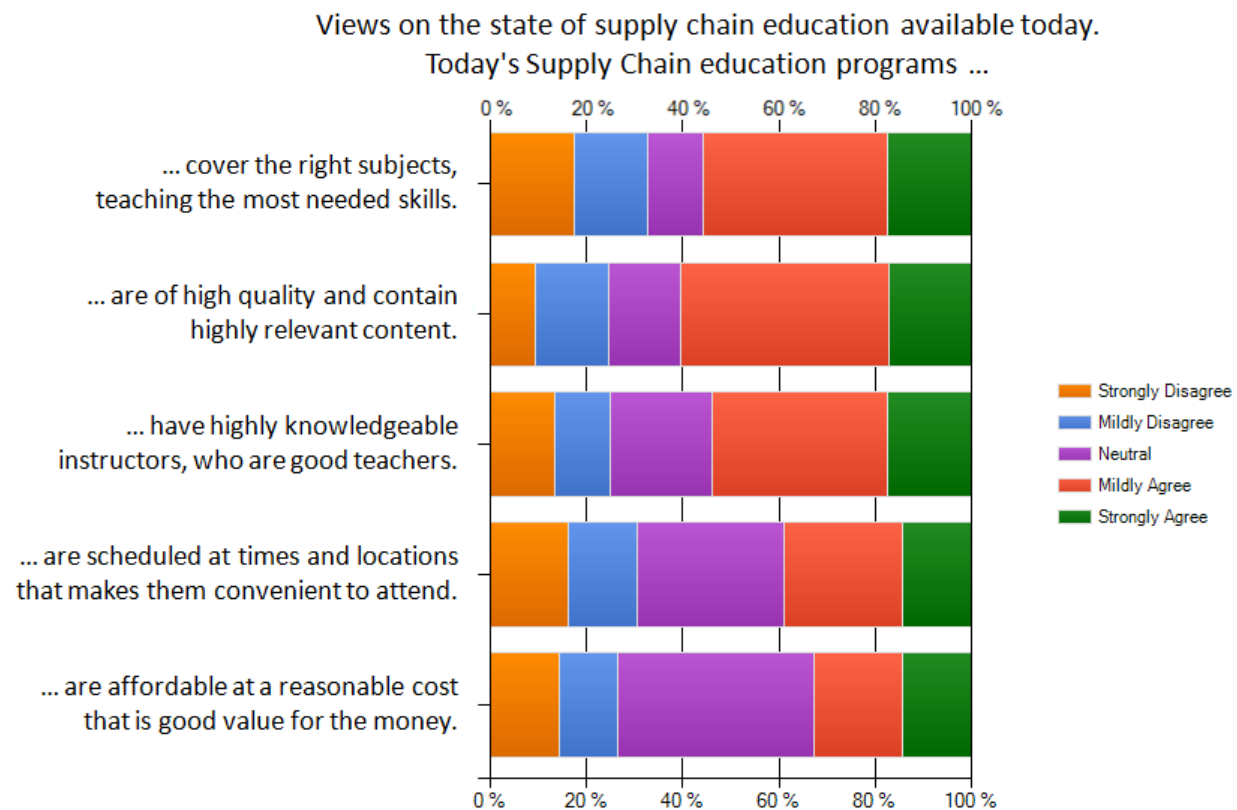


Figure 1 - State of Supply Chain Education

So there is definitely room for improvement. In fact, the comments we received on the state of education tended to be more negative than the survey numbers above suggest. For example one person said, *“Offered programs are parochial in nature, designed to drive sales of a vendor’s tools or services, or are too generic to be of value. For example, [a major prestigious university] doesn’t even understand its own legacy in systems thinking. Supply chains are complex and there are no easy fixes. Grossly simplified*

views perpetuate myths and drive the wrong solutions." Not exactly a resounding endorsement. Some comments were even harsher, which we won't publish here as they would be considered "flaming" if this were a blog.

Less Theoretical, More Practical

By far the most common comment on the state of supply chain education today was that it needs to be much less theoretical and more grounded in reality, taught by people with industry experience. There were many dozens of comments on this theme—here are a few cogent examples:

- *"There is a significant lack of operating experience in the academic ranks. We need experienced executives teaching—real supply chain people from the industry as part of the program—rather than educated PhD's who never worked in the business."*
- *"Most of the programs result mainly in just creating awareness. Rarely do participants get a solution for their real problems."*
- *"We need practical training that can be put into actual use, exercise-oriented and hands-on experience with the tools being used today. Taking it from the theoretical into the practical and addressing key topics from a business perspective including risk, sustainability, etc."*
- *"Focus on how to get the job done in daily work—how to convert the business decision into supply chain parameters to formulate a sustainable supply chain towards the customer."*

Another comment in particular highlights the difference in mindset between the academic and practitioner when it comes to what and how they teach:

- *"Many academics surround themselves with research which is nothing more than a new twist on an old idea. Some have value ... but most don't. The academic approach does not assimilate true responsibility. They are generally given a blank slate. To be effective is to understand the constraints and succeed within these boundaries. It can and is being done in industry."*

2011 Supply Chain Education Priorities—Strategic View is Key

We also wanted to know what the most important education needs are for 2011. As shown in Figure 2 below, Supply Chain Strategy and Leadership was ranked as the most important area. Strategy skills, conceptual problem solving, supply leadership, and integrated planning were some of the most frequently commented on needs. This is an area near and dear to ChainLink Research as we have been writing for years about the need for supply chain professionals to be able to speak the language of the CEO and the board, translating supply chain improvements into financial and strategic terms. One comment emphasized this point: *"It is critical to teach the impact of good supply chain management on financial and company performance and how to communicate that."* Another emphasized the *". . . need to understand supply chain management's pivotal role in a firm's strategy to gain and maintain competitiveness."*

Many comments from survey participants suggested that communication skills are key. As one person said, *"Verbal and written communication skills are critical as they impact how you as a Supply Chain Professional are viewed. It doesn't bode well for the industry, nor can we make an impact personally, if*

we cannot communicate well.” One person said, “We need to teach how to present your case to upper management for changes needed.”

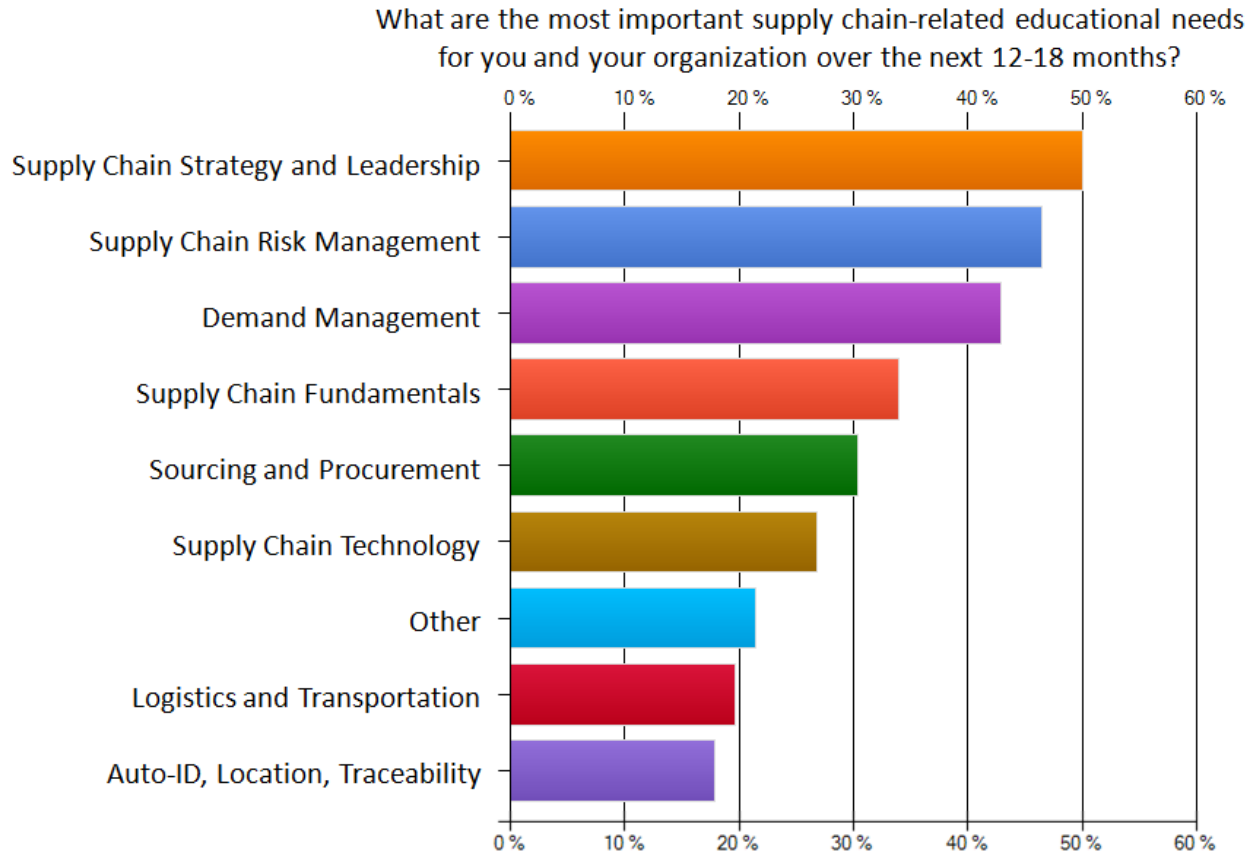


Figure 2 – 2011 Supply Chain Education Priorities

Supply Chain’s Integrative Role in the Overall Enterprise

Another strategy-related priority mentioned by several people was, *“Teaching a holistic view of supply chain’s role as an integrated, critical function within the business.”* One respondent emphasized the importance of *“. . . teaching how the whole chain really connects or is suppose to connect, so that students can then hit the ground running when employed and recognize broken links in the company’s supply chain.”* Another stressed the need to impart *“. . . an understanding of supply chain integration and its relation to the total business picture and business strategy.”*

Cross-Functional Skills Needed

Experienced practitioners understand that supply chain is essentially a cross-functional responsibility. The need to teach cross-functional skills and the ability to bridge organizational boundaries was another suggestion that appeared often in the survey feedback. *“Collaboration within and between functional areas, customers, and suppliers is key. There is too much focus on silos and specific functions and very little focus on a holistic view. In general, there is an under-appreciation of the people aspect and an over-*

emphasis on tools. We need more cross-functional programs getting supply chain together with finance, marketing, IT, and other functions.” Another take on this theme touched on the ability to optimize across functions: “Teach how to balance the goals of silos, such as manufacturing and logistics, to meet the higher-level goals of the enterprise.”

Supply Chain Risk—Critical Area, Extreme Shortage of Good Courses

In our annual business priorities survey, managing supply chain risk ranked fairly high – usually about 4th, 5th, or 6th on the list. However, in this education survey, Supply Chain Risk ranked significantly higher. As the second in priority, it beat out even the perennial highest priority “favorite” Demand Management. We believe this is due to the shortage of Supply Chain Risk Management talent in the marketplace and almost total lack of in-depth educational courses available in this discipline. One commenter emphasized the connection between risk management and their overall supply chain strategy: *“Our highest priority educational needs are in supply chain strategy formulation and risk assessment and mitigation strategies.”*

Demand Management, S&OP

Not surprisingly Demand Management ranked high in priority, coming in third, as it has consistently been one of the highest priorities in prior surveys. It also is an indication of the fact that few existing supply chain education programs are strong in the area of Demand Management, as reflected in the comment, *“Education programs are weak in Demand Management methodologies. Many people think it is just about forecasting, but there is much more to it than that.”*

Many of the comments focused in on the S&OP (Sales and Operations Planning) process. Here are three observations that reinforced the central importance of learning S&OP concepts, grounded in a financial view of the enterprise:

- *“The core of supply chain education should be around the concepts of finance represented in a forward-looking S&OP model. From there the student can dial into the sub-areas they have an interest in, but they should begin by learning the basic, first principal drivers of success.”*
- *“The most important need is S&OP, S&OP, S&OP! But make sure it is a forward-looking, bottom up, finance view of S&OP, with drill down to operational components.”*
- *“Leading education institutions need to teach a finance approach that uses supply chain measurement to create an alternative accounting of balance sheet and inventory. In today's world, a real S&OP model is the best there is ... but that can be improved.”*

Supply Chain Fundamentals—Still a Necessity

The need for education covering the fundamentals of supply chain remains solid and was ranked the fourth highest priority in our survey. While some people consciously choose and prepare for a career in supply chain, many people end up there more by happenstance. Perhaps they started out in the warehouse or even as a driver and worked their way up through the ranks of logistics, or as a buyer managing suppliers and commodities. In these cases, they may have excellent skills in those functions, but never have been trained in the fundamentals. For this reason, the opportunity to learn the

foundational principals of supply chain can be invaluable, not just as an undergraduate starting out, but also later on during a career.

Logistics and Transportation

Logistics and Transportation was ranked as the second lowest educational priority in our survey, barely beating out the much narrower domain of auto-id and traceability. That is notable because Logistics and Transportation are the primary focus of many, if not most, academic programs in supply chain. This was reflected when we asked how well the educational need was being met in a variety of areas (Figure 3 below), Logistics and Transportation came in first place as the one area that people felt was already the most well covered. In spite of this, there were still some complaints, like, “We need better programs on transportation policy and economics. Many of the education programs were founded upon transportation, but transportation is growing in scale and complexity in most companies, and universities are only addressing fundamentals.”

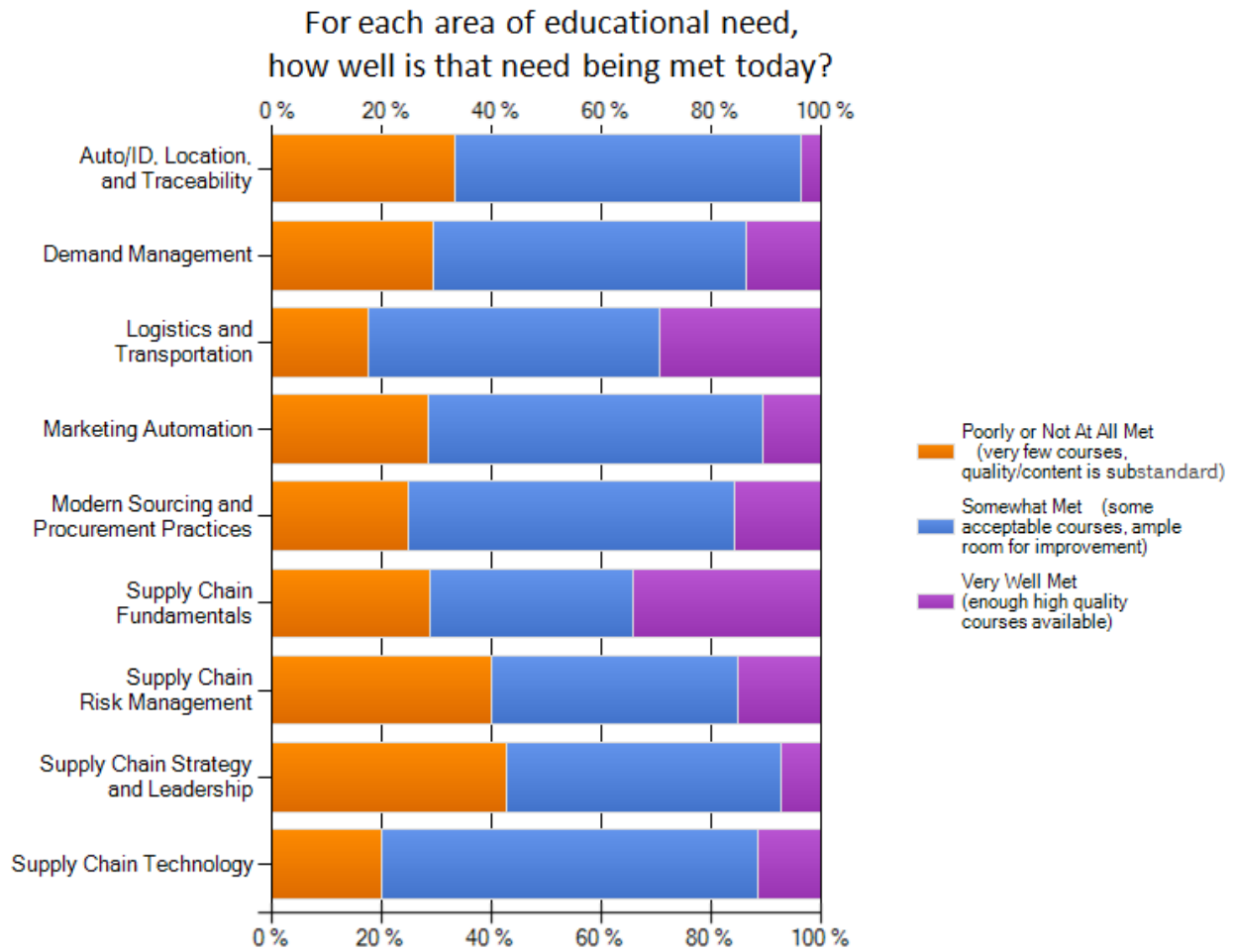


Figure 3 – How Well Are Needs Being Met in Specific Areas

Another thing that stands out is that the two areas ranked highest in priority in Figure 2—Supply Chain Strategy & Leadership, and Supply Chain Risk Management—are also the two areas where the needs are being least well met (see Figure 3 above). Clearly the community is crying out for better education in these crucial areas.

Auto-ID, Location, and Traceability—Needs Not Being Met

Although Auto-ID and Traceability ranked lowest in priority for education (Figure 2), it was also ranked as being one of the least well served areas (Figure 3), with fewer people saying the needs were “very well met” than any other category. We have enough conferences and publications in this area, but precious few quality educational programs. One respondent said, *“We need programs creating an understanding of Auto ID standards and the business value to be gained from using them for inventory visibility, traceability, and sharing information with trading partners.”*

Sourcing and Procurement

This was an area that ranked in the middle both in terms of priority and how well the need is being met. It was also an area with a fair number of comments demonstrating the passion and engagement of those who are interested in this area of education. One of those comments encapsulated many of the needs, *“We need better programs covering commodity buying and category knowledge in strategic procurement, hedging, options, Incoterms, negotiation skills, and the differences and similarities between public vs. private buying.”*

Supply Chain Technology

Supply Chain Technology ranked slightly low as a priority and is an area people think is reasonably well covered in existing educational programs. In spite of that, it was one area that was frequently commented on. Some people were asking for education on how to evaluate and purchase enterprise systems. Others addressed more specific needs such as *“. . . integration of disparate supply chain data into a single database for analysis/use.”*

Sustainability / Green / Corporate Social Responsibility—Growing in Importance

We also saw people expressing opinions about educational needs in a number of areas or dimensions that were not specifically asked in the survey. One that came up over and over was sustainability. This has become a critical topic in supply chain and one that is evolving rapidly, often driven by regulation. For example one person said there is need for education on *“. . . conflict minerals, substances and materials regulations, Green Screen, and evaluating substances for proactive restriction.”* Another said, *“There is a burning need for education in green/sustainable supply chain management, as well as ethical sourcing.”*

Degree Programs / Depth to Cover Complex Supply Chains

A number of people asked for degree programs in supply chain. One person said, *“We need MBA programs with Supply Chain concentrations.”* Another suggested that supply chain education, *“. . . needs to be a subprogram under a leading MBA school or Industrial Engineering school.”*

Some people also railed against over-simplification in education programs. One person said, *"Certification assumes easy fixes and ignores complexity and supply chain diversity."* Another said, *"We need a series of programs and/or executive education courses that covers from the basic to the most complex supply chains."*

Industry-specific Education Needed

Another recurring theme was the need for industry-specific knowledge. One person said, *"In addition to teaching the fundamentals, it would be extremely helpful to have industry-specific supply chain education."* Some people brought up very specific needs for their industry such as the need for education on *"... the security of pharmaceutical products throughout the supply chain, anti-counterfeiting and anti-tampering measures."* or *"... teaching about infrastructure needed for a successful, multi-channel customer experience for retailers."*

Supply Chain for SMB—An Unmet Need

People from smaller firms spoke out about their unmet needs in supply chain education. One person made the plea this way: *"We really need supply chain management programs designed for small and medium size companies. Current programs are focused on highly industrialized organizations and multinational companies, such as big automotive firms. For theory that is necessary, but in practice many employees work for small and medium sized companies."*

Supply Chain Education—Foundational to a Company's Long Term Success

Finally, we heard a recurring theme from survey respondents lamenting the inadequacy of support from their employers for this critical educational need. One person said, *"Unfortunately, most companies do not provide enough support for education for their Supply Chain professionals. They may have some people get some additional schooling, but it does not go deep enough in the chain of command."* Or to put it more plainly, one respondent lamented, *"My biggest challenge is how to pay for it and when to find the time."*

Clearly supply chain education is one of the best investments a company can make, provided they are sending the right people to the right institutions and instructors. It is an easy target to be cut when budgets are under pressure. However, investments in people, especially in an area that is as strategic for competitive advantage as supply chain, are among the best investments an enterprise can make for their long term success.

Note: We are currently conducting a survey on 2011 Business Priorities. To participate and receive a copy of the research findings, please go to: <http://www.clresearch.com/research/detail.cfm?guid=4EE10537-3048-79ED-99E3-30CC73BDD59D>

This mini-report can also be found online in a serialized form at:
<http://www.clresearch.com/research/detail.cfm?guid=6278771F-3048-79ED-99F7-F13E2C22C401>