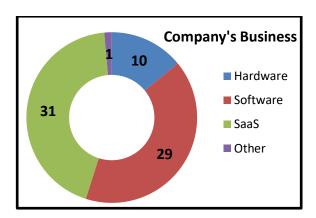
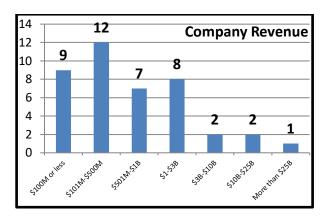


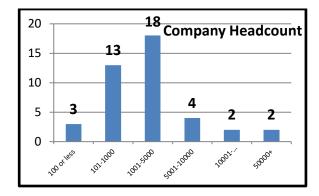
CEdMA Training Market Barometer 2nd Quarter 2017 Actual

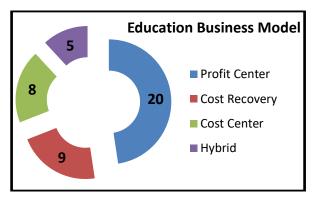
Introduction

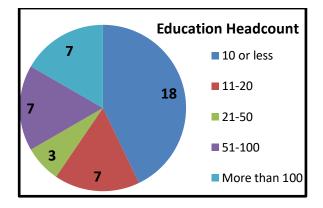
This report is compiled by CEdMA for its members about their Education businesses. It is based around a series of absolute growth or decline percentages in the range +- 12.5%. Revenue and volumes refer to training services delivered in the quarter and not future bookings. Members were asked to indicate whether their data was for the global business or that for North America. Note that in this report, u/f/d is the number of members reporting up/flat/down, respectively. There were 34 responses for global and 8 for North America so the combined 42 profiles are as follows:

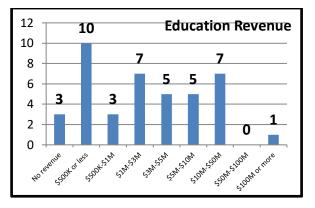












Changes to the Barometer

In response to member suggestions, we have changed the survey in the following ways from 16Q1:

- 1. We only collect data about the quarter just ended, not the "current" quarter
- 2. All guestions ask about revenue, not some about volumes
- 3. We ask about the major modalities such as ILT, VILT and eLearning, plus additional services.

Summary

The unweighted average uses all responses as entered, whereas the weighted average uses the size of the revenue, taking the relevant education value, so larger companies have a bigger impact.

These observations are weighted and based on trendlines of 4-period moving averages.

Total Revenue is defined as all recognized revenue. This is now steady at a 3% increase year-on-year. **Operating profit** is revenue minus all fixed and variable costs, excluding allocations, divided by revenue. The growth is now 3-4% year-on-year, up from 1% in 2013-14.

Live Classroom (ILT) is all revenue when the instructor is in the same physical location. Growth was flat in 2013-14 but is now 2%.

Virtual Classroom (VILT) is all revenue for instructor-led training via the web, with or without virtual labs. Growth dropped to 1-2% during 2013 but is now 5% having been 6% in 2015-16.

Public (scheduled) classes is revenue for ILT and VILT and has now dipped under flat, having peaked at 2% in 2014.

Private (one-customer) classes is revenue for ILT and VILT, and now showing an increase of 4%, having been 3-4% in 2014, but just under 2% in 2015.

Self-paced is all revenue generated by training students without instructors, such as eLearning, video, and can be paid per use or subscription. It's now showing a 9% increase having grown steadily from a 4% increase in 2013.

Certification is all revenue for certification business, such as exam fees and exam prep services, but excluding any exam prep training which is accounted under ILT/VLT/self-paced. The trendline has fallen to flat, having been over 5% in 2015.

Learning Consulting is all revenue generated by non-training education business like learning needs analysis, customization of material assessments, and mentoring/coaching after training. There were increases of 2-3% in 16H1 but in 17Q2 there was a decrease of over 3%.

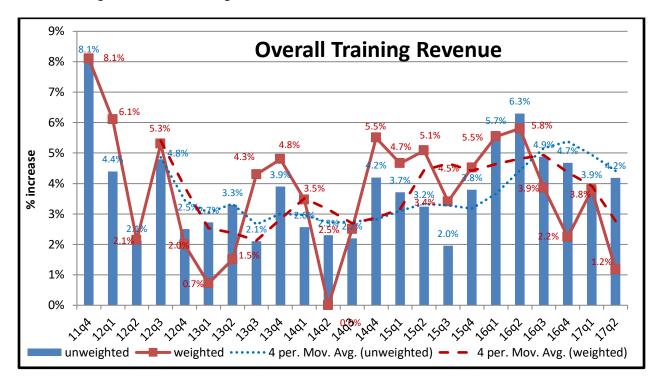
Learning Technologies is all revenue generated by learning tools, infrastructure, courseware and directly related training and learning consulting for these technologies. After decreases of just over 2% in each of the first three quarter of 2016, revenue has remained flat since then.

New Learning Modalities is all revenue for social learning, gamification, microlearning, mobile. After increases of 7-12% in the first three quarters of 2016, quarters since then have remained flat year-on-year.

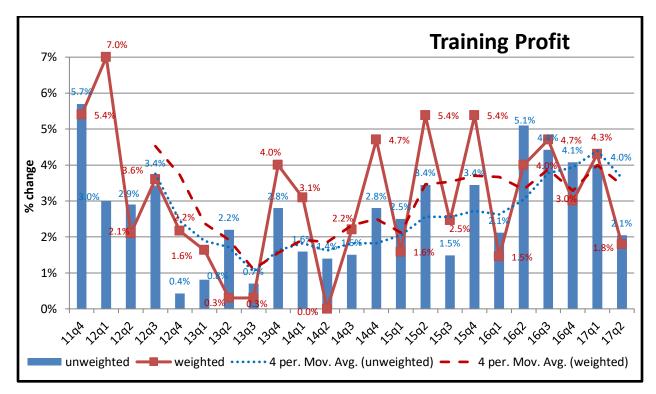
Subscriptions include all revenue from any of the above modalities included in subscriptions. Subscription revenue has grown on average 8% during 2016, with a 5% increase on average in 2017.

Training Revenue and Profit

The unweighted total training revenue increase for 17q2 (u=24, f=7, d=9) was 4.2%. The weighted total training revenue increase was 1.2%. The 4-period moving average is currently showing an increase of 4-5% for unweighted and 3% for weighted.

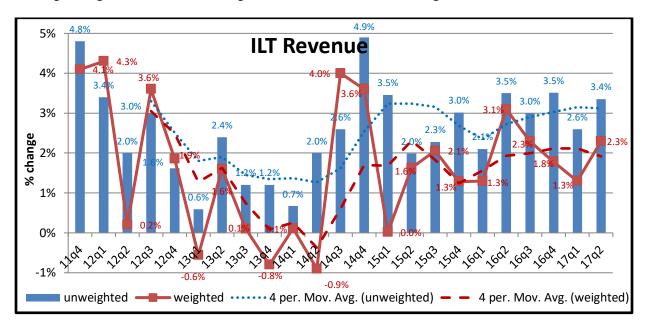


Training profit in 17q2 (u=16, f=15, d=8) was a 2.1% increase unweighted, and 1.8% weighted. The training profit four-period trendlines currently show a 3-4% increase for both unweighted and weighted.



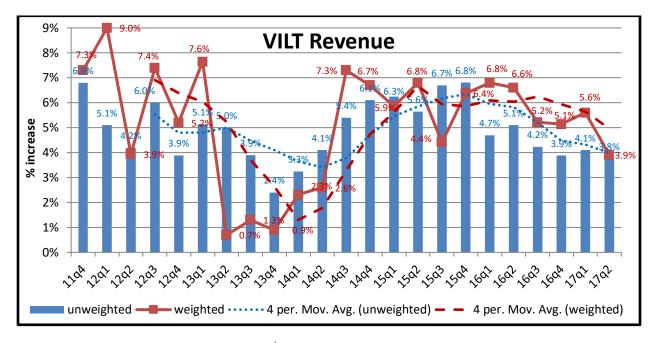
Live Instructor-led Training

The unweighted live classroom **revenue** increase for 17q2 (u=19, f=11, d=8) was 3.4%. The weighted live classroom volume increase was 2.3%. Live classroom revenue, therefore, is still increasing! The 4-period moving average is 3% increase unweighted and 2% increase when weighted.

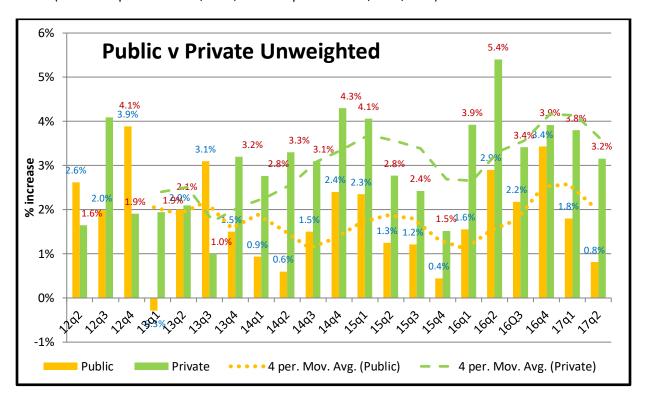


Virtual Instructor-led Training

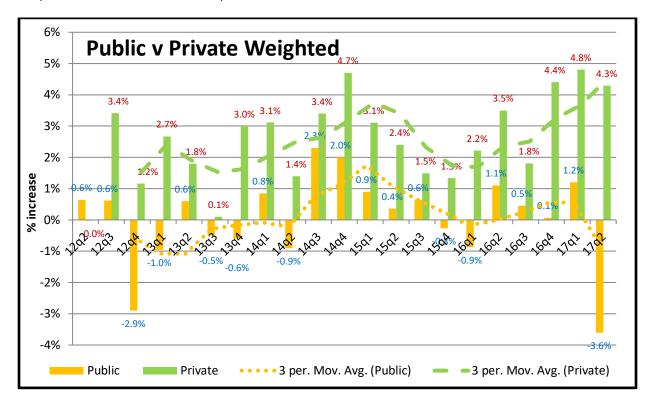
Virtual classroom on the other hand has been growing faster, apart from a small dip in 2013-14. The unweighted virtual classroom **revenue** increase for 17q2 (u=20, f=11, d=7) was 3.8%. The weighted virtual classroom volume increase was 3.9%. The 4-period moving averages for unweighted has dropped to 4% but weighted is steady at 5%. Live and virtual classroom data underline the expected trend to virtualize more training to save travel expenses and allow better resource utilization.



We now include questions on public classes and private classes. After a "blip" in 13Q1, both **revenues** have increased in 17q2, by 0.8% public and 3.2% private. The trendline for public is 2% and for private is 3-4%. (Note that public is u=13, f=15, d=9 and private u=18, f=12, d=8.)

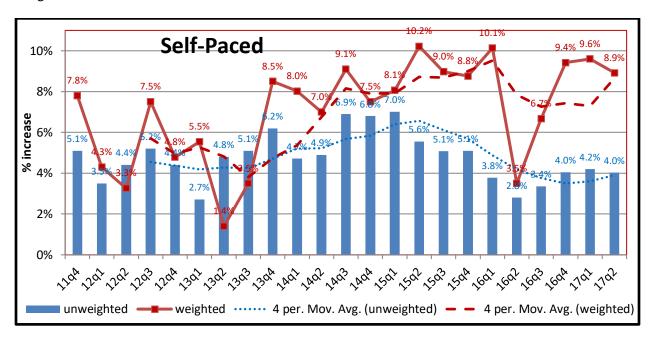


When weighting is considered, the changes are less dramatic, except for 17q2. Public **revenue** has decreased 3.6% but private **revenue** has increased 4.3%. The 4-period moving average is just under flat for public but is a 4% increase for private.



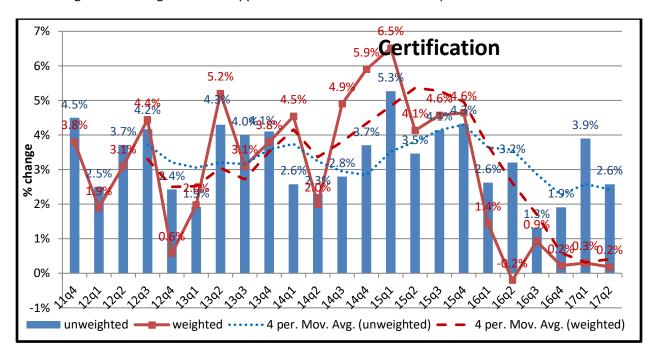
Self-Paced

The unweighted self-paced **revenue** increase in 17q2 (u=16, f=18, d=2) was 4.0%. However, the weighted self-paced **revenue** increase was 8.9%, just under last quarter. The growth remains higher than virtual classroom. The 4-period moving average shows a 4% increase for unweighted and 9% for weighted.



Certification

The unweighted certification **revenue** increase for 17q2 (u=12, f=17, d=4) was 2.6%. The weighted certification **revenue** increase was 0.2%. The 4-period moving average is showing an increase of 2-3% for unweighted but weighted has dropped to flat. 33 out of the 42 companies offer certification.



Learning Consulting

Period	# responses	# up	# flat	# down	unweighted	weighted
16q1	32	5	22	5	0.0%	2.4%
16q2	32	6	22	4	0.9%	3.2%
16q3	31	5	21	5	0.2%	(0.7%)
16q4	30	7	20	3	1.0%	(0.6%)
17q1	30	7	21	2	1.4%	(0.9%)
17q2	28	5	21	2	0.8	(3.5%)

Learning Technologies

		<u> </u>				
Period	# responses	# up	# flat	# down	unweighted	weighted
16q1	29	7	21	1	1.0%	(2.3%)
16q2	31	3	25	3	0.3%	(2.3%)
16q3	27	3	23	1	0.9%	(2.4%)
16q4	26	1	25	0	0.5%	0.0%
17q1	27	1	26	0	0.5%	1.3%
17q2	27	1	26	0	0.3%	0.0%

New Learning Modalities

	_					
Period	# responses	# up	# flat	# down	unweighted	weighted
16q1	30	9	21	0	2.4%	12.1%
16q2	31	4	27	0	1.%	7.3%
16q3	29	5	23	1	1.6%	7.4%
16q4	27	4	23	0	1.1%	0.8%
17q1	28	2	26	0	0.5%	0.0%
17Q2	27	2	25	0	0.4%	0.0%

Subscriptions

Period	# responses	# up	# flat	# down	unweighted	weighted
16q1	36	18	18	0	4.3%	10.7%
16q2	34	15	17	2	3.8%	5.0%
16q3	33	13	18	2	3.9%	11.2%
16q4	32	16	13	3	4.6%	4.7%
17q1	34	15	18	1	4.1%	6.3%
17q2	34	13	20	1	3.4%	4.3%

Which subject areas saw the biggest increases in your training volumes in the last 3-6 months?

- 1. Decrease in customer sales resulted in increases across the board.
- 2. YOY organic growth across all software products.
- 3. Subscription-based on-demand learning
- 4. Industry-related strategy (not software training)
- 5. OnDemand (self-paced/eLearning)

- 6. Functional End User Training
- 7. Live online classes
- 8. Onsite (private) classes
- 9. ILT
- 10. Self-study, because we decided to give it away for free to the end of the year
- 11. All are growing >10% QOQ
- 12. Unfortunately, we were down across the board in Q3
- 13. Essentials training
- 14. eLearning subscriptions
- 15. All of our classes. Currently we teach 5 courses, all ILT. I don't have any info on the ATC classes.
- 16. Private Training
- 17. Learning consulting
- 18. We taught a Situational Leadership course to internal management. We completed a WBT version of the Agent Tools course. We are creating an Engineering on-boarding program.
- 19. Live classroom training.
- 20. None between quarters
- 21. We just started selling training via an eCommerce portal so increases were in all areas. We have offered consultations for a long time and those have stayed steady, because they are part of our implementation fee and process for every customer. Updated survey: Hasn't changed much. Our eCommerce or courses for sale offerings have increased over the last few months.
- 22. The need for individual purchase of one-time events
- 23. Self-paced
- 24. Advanced classes
- 25. Infrastructure automation management; Collaboration
- 26. eLearning
- 27. Software compression and platforms
- 28. Cybersecurity
- 29. All our core products
- 30. Self-paced On-demand training. We converted to a Subscription model.
- 31. Self-paced/eLearning
- 32. Private event programmes.
- 33. eLearning training and instructor-led training
- 34. New courses have increased the number of students taking public instructor classes
- 35. Data Integration; Self-service data preparation; Big Data
- 36. Security
- 37. Customers buying subscriptions to our online learning offering
- 38. Classroom training for customers.
- 39. Private Classes
- 40. Self-paced, certifications
- 41. Customized, onsite training.

Which subject areas saw the biggest decreases in your training volumes in the last 3-6 months?

- 1. Across the board due to slowdown.
- 2. None.

- 3. Public ILT
- 4. None
- 5. Public Training (on premise), certification
- 6. Technical Training
- 7. One-on-one training
- 8. certifications
- 9. ILT student days
- 10. None
- 11. Education consulting projects
- 12. In-center (=public) classes; Learning consulting
- 13. None
- 14. Public Classroom Training; Information governance trainings; Virtual Training
- 15. Classroom training
- 16. Our trainer got laid off, so we're not offering Agent Tools in an ILT format. We still have no permanent staff, only contractors.
- 17. Virtual instructor-led training.
- 18. ILT
- 19. Beginner classes/fundamentals
- 20. Security (although we experienced decrease, but still one of the top volumes; it came down from the past high peak volume)
- 21. None. Everything is growing.
- 22. Hardware compression
- 23. Network Video Fundamentals
- 24. Certification, because we started charging for the Online training.
- 25. Technical public schedule
- 26. None
- 27. Self-paced gated by the LMS
- 28. Enterprise service bus
- 29. More established products
- 30. Public classroom training
- 31. Internal training
- 32. Free basic live webinar series. No one attends them anymore so we recorded and created ondemand versions of approximately 8-hour long courses. Frees up our delivery team and still allows us to claim 'freemium' learning solutions for all customers.
- 33. Public training.

What were the two greatest challenges you faced in running your business in the last 3-6 months?

- 1. Hostile department takeover. Those who think that only eLearning will suffice.
- 2. Being downstream of company's strategic change. Pressures to further increase efficiency.
- 3. Reduction in Public ILT demand
- 4. Keeping up with growth while maintaining excellence in delivery. Keeping up with product changes.
- 5. Getting buy-in from Sales on training attach rate to deals. Tying efforts to key product adoption metrics

- 6. Maintaining Margins with Bookings Decrease; Sales and Marketing support of Training
- 7. Maintaining focus on the business due to the distraction of an acquisition process; Maintaining attach rates to license sales due to a change in the license sales comp model. Training is no longer part of the license sales comp plan.
- 8. Development/engineering resources for furthering technology used for learning
- 9. Attachment to license; hiring to the scale we need to meet demand, a niche skillset
- 10. Resources to do the work and LMS reporting
- 11. Getting new online mentoring program in place and fixing how people find our courses
- 12. Implementation project delays causing delays in customers attending training and user adoption projects; Less than expected product sales with attached education
- 13. Inadequate funding; Resourcing training delivery
- 14. Need to overhaul the portfolio to adopt new learning technologies (freemium models); Go to Market model changed and not yet fully adopted
- 15. Meeting demand. We currently have a 4-6 weeks lead time to deliver classes to our customers.
- 16. Moving back to a revenue generating model selling training again; Increase training offerings in local languages
- 17. Operational inefficiencies in learning management and registration
- 18. Converting all ILT content to WBT.
- 19. Demand for training to enable internal groups and partners is very high, but generally not revenue-generating. Training is often sold incorrectly at consulting rates instead of at education rates, resulting in lower revenue and requiring post-sale corrections.
- 20. Working with sales to sell training on deals; Juggling priorities between strategy, content development and daily business with a small team.
- 21. Getting existing customers to understand why we are charging for training, when they have perceived it as free because it was part of their implementation fee and not separated out. The second is trying to determine how to best package and offer our subscriptions mix of courses to include, length of time to allow, how to set up in our learning management system, etc. Updated survey: Again. not much change. The added challenge is working with leadership to understand why it is not in our or our customers' best interest to just use all video for training.
- 22. Sales
- 23. Keeping up with product changes
- 24. Delivery (resources to teach our classes). Engagement of a specific subset of our community to come to classes.
- 25. Scaling organization to meet demand. Scaling technology infrastructure to meet demand.
- 26. Declining sales in overall business training revenue is a lagging indicator
- 27. Internal Change; Process Development
- 28. Attach rates
- 29. Dramatic growth in our partner business, leading to training challenges there. Converting from a start-up with a disruption-focused training business, to a more mature business with a P&L responsibility.
- 30. Moving partners across to a new fee structure with supporting revised contracts. This has resulted in an increase of program fees QOQ in Q1 but is being offset through the year as much of it has just been pulled forward, hence a decline in Q2
- 31. Attaching training credits to product sales.
- 32. Pressure to give away video-based content; Trying to define a premium training subscription
- 33. Getting students to take our multi-day public classes. Keeping up with content development needs.
- 34. Supporting the learners of self-study subscriptions. Getting different partner organizations to adopt our training.

- 35. Keeping up with all product development- How to increase training demand
- 36. Sales not attaching training to their deals, working with a new version of the product roll out and a complete rebuild of our subscription content for the new interface.
- 37. Getting qualified Instructional Designers. Getting Marketing around the new program offerings
- 38. Getting our field sales teams to attach training, even on really large ARR deals. When partners are reselling the solution, attach rates are about 25% of what our own team does. So we've got executive support to rollout mandatory attach and we have a healthy SPIFF budget to reward attach behavior. Hoping to see a difference this quarter.
- 39. Budget, volatility
- 40. Enterprise license sales. Resources and staffing.

Please add any other comments or observations you have on the state of the IT Training market

- 1. IT and Cyber Security skills have never been so scarce. Cyber Security market is surging in relevance and criticality. Industry maturing is driving attention on tighter financial measures.
- 2. Market shift from Perpetual license to Subscription/SaaS. Customer expectation of low cost and/or subscription-based Education as a result.
- 3. I'm seeing more teams come at this from a Customer Success perspective, where the objective is not to run a Services team on a P&L, but to operate in a cost center or cost recovery model that supports the customer behaviors that lead to retention and expansion.
- 4. SIs demanding greater training discounts; LMS market ripe for disruption; Grey Market, MOOCs, and outfits like O'Reilly continually putting pressure on tech training
- 5. Launch of a Change Management practice
- 6. We've seen a tremendous benefit in partnering with Pluralsight to get our elearning courses on their platform as the exclusive channel. For what we lose in revenue, we make up for in volume and exposure, which will be interesting to measure quarter over quarter. Already in the first 2 months on their platform, we've seen an audience complete our courses that represent a year's worth of volume.
- 7. People still want ILT as a premium service and sales people try to give away too much training.
- 8. Customers are moving away from Brick and Mortar classroom training.
- 9. More demand for micro-learning
- 10. Seems to be interest in Subscription Program.
- 11. In our company, I see instances of customers not completing or at times not even take the training.
- 12. Many more customers expect "free basic training" with their software because they can YouTube or Google how to do many things. That is not the case with proprietary software however. Also, the perception that a 5 minute high level video can train someone to effectively use a complex, robust software that is used to run a key part or entire business is a challenge we have as an industry. We have to modernize to our learners while still keeping ourselves grounded in scientific based methods that facilitate effective learning. Update survey: I have seen an increase in the use of virtual labs, however do not totally understand how they work yet. I would like to know about this trend in training.
- 13. All my responses are based on a new training organization that has historically offered self-paced training free. I've been brought on specifically to transform the business to a full services training organization to be profitable in 2 years.
- 14. Larger enterprise customers are more likely to invest in training.
- 15. Move to blended and mobile

- 16. It seems like certification is seeing some decline in the IT industry. Maybe it's just my cohorts and I?
- 17. Consumption of training found to be about the same for customers who paid versus customers who did not. Poor consumption in general. Strong correlation found between customers who did not consume training and churn.
- 18. No Change; The need for more and more content. Most people do not seem to want to take long courses, concise, choose your own adventure type learning.
- 19. We continue to see attempts to cheat on exams.
- 20. Customers are not very tolerant of long classroom based training, they want just in time and on demand training
- 21. We are a SaaS-based company, we are seeing more solutions in the cloud. This does bring a different opportunity to the training organization.
- 22. Big uptick in "just-in-time" or "contextual" training. Lots of applications with popups for "hey did you get stuck" or "hey would you like to learn a little more about this feature?" All based on a user's configuration and where they are in the application. Very interesting.