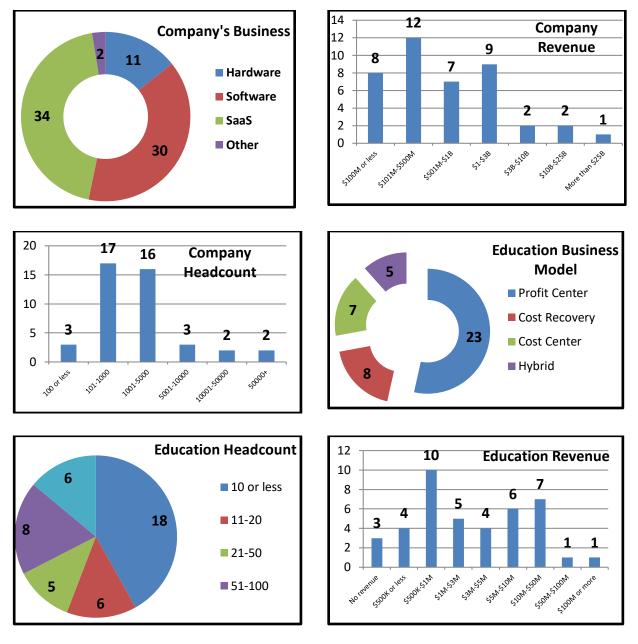


CEdMA Training Market Barometer 1st Quarter 2017 Actual

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 35 responses for global and 8 for North America so the combined 43 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 questions 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 4% increase year-on-year. **Operating profit** is revenue minus all fixed and variable costs, excluding allocations, divided by revenue. The growth is now 4% year-on-year, a steady increase from 1% in 2013.

Live Classroom (ILT) is all revenue when the instructor is in the same physical location. Growth was flat in 2013 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 has been consistent at around 6% for the last two years. Public (scheduled) classes is revenue for ILT and VILT and now showing flat, having peaked at 2% in 2014.

Private (one-customer) classes is revenue for ILT and VILT, and showing an increase of 3-4%, 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 7-8% increase having grown steadily from a 4% increase in 2014.

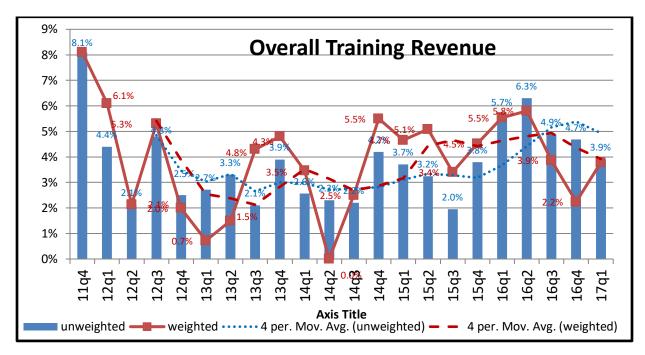
Certification is all revenue for certification business, such as exam fees and exam prep services, but excluding any exam prep training which is accounted under ILT/VLT/self-paced. The trendline has fallen to flat, having been over 5% a year ago.

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 since then each quarter decreases of just under 1%.

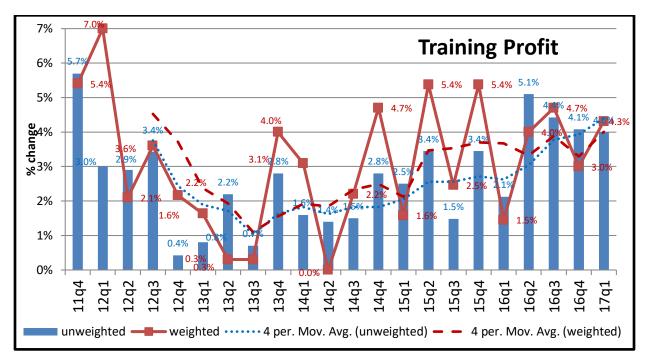
Learning Technologies is all revenue generated by learning tools, infrastructure, courseware and directly related training and learning consulting for these technologies. After decreases of just over 2% in each of the first three quarter of 2016, this was flat in 16Q4 but now showing an increase of 1.3% in 17Q1. 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 16Q4 and 17Q1 are showing flat. Subscriptions include all revenue from any of the above modalities included in subscriptions. Subscription revenue has grown on average 8% during 2016, with a 6.3% increase in 17Q1.

Training Revenue and Profit

The unweighted total training revenue increase for 17Q1 (u=26, f=7, d=8) was 3.9%. The weighted total training revenue increase was 3.8%. The 4-period moving average is currently showing an increase of 5% for unweighted and 4% for weighted.

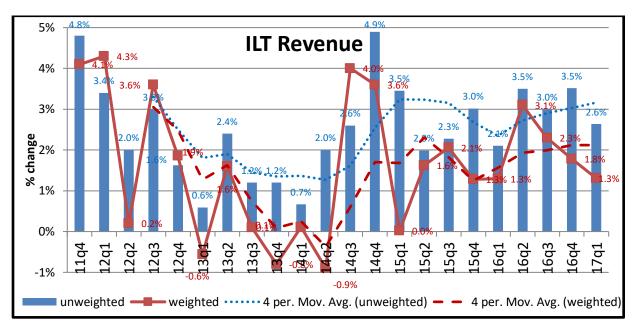


Training profit in 17Q1 (u=21, f=14, d=5) was a 4.0% increase unweighted, and 4.3% weighted. The training profit four-period trendlines currently show a 4% increase for unweighted and 4% weighted.



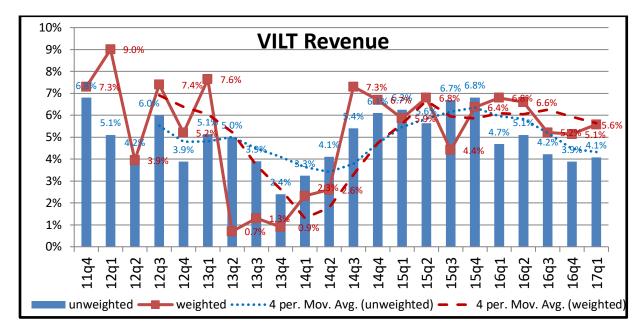
Live Instructor-led Training

The unweighted live classroom **revenue** increase for 17Q1 (u=20, f=8, d=9) was 2.6%. The weighted live classroom volume increase was 1.3%. Live classroom revenue, however, is still increasing! The 4-period moving average is 3% increase unweighted and 2% increase when weighted.

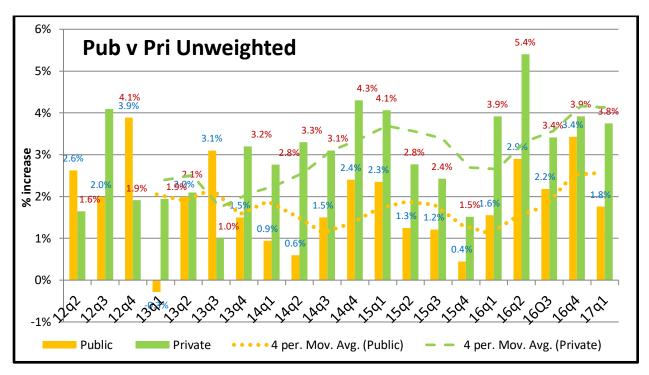


Virtual Instructor-led Training

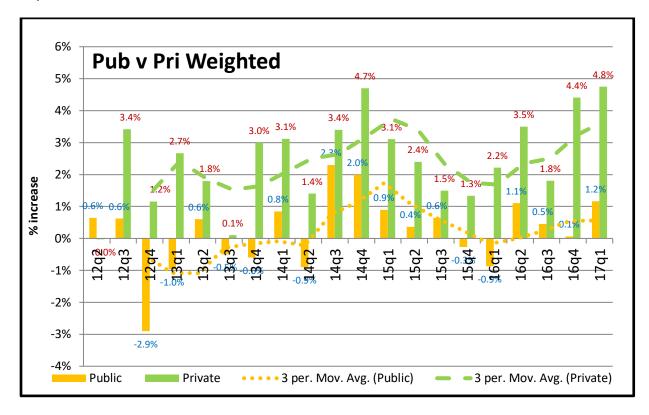
Virtual classroom on the other hand has been growing faster, apart from a small dip in 2013-14. The unweighted virtual classroom **revenue** increase for 17Q1 (u=23, f=8, d=7) was 4.1%. The weighted virtual classroom volume increase was 5.6%. The 4-period moving averages for unweighted has dropped to 4-5% but weighted is steady at just under 6%. 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 17Q1, by 1.8% public and 3.8% private. The trendline for public is 2-3% and for private is 4%. (Note that public is u=15, f=13, d=9 and private u=21, f=11, d=6.)

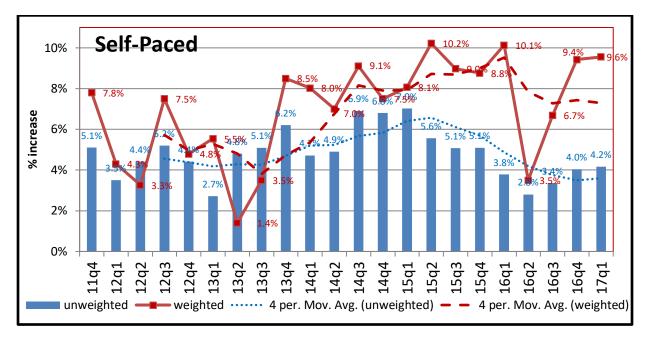


When weighting is considered, the changes are less dramatic. Public **revenue** has increased 1.2% and private **revenue** has increased 4.8%. The 4-period moving average is just above flat for public but is 3-4% for private.



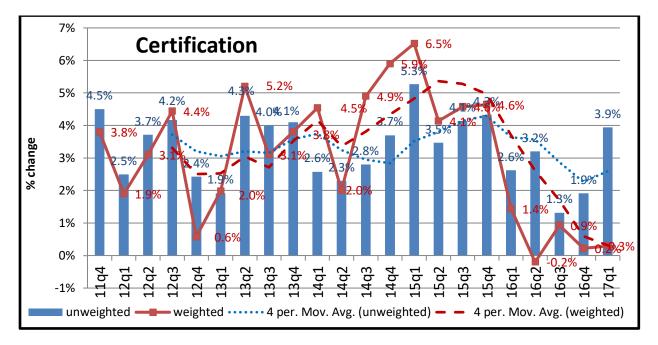
Self-Paced

The unweighted self-paced **revenue** increase in 17Q1 (u=15, f=18, d=3) was 4.2%. However, the weighted self-paced **revenue** increase was 9.6%, about the same as last quarter. The growth remains higher than virtual classroom. The 4-period moving average shows a 3-4% increase for unweighted and 7-8% for weighted.



Certification

The unweighted certification **revenue** increase for 17Q1 (u=14, f=17, d=2) was 3.9%. The weighted certification **revenue** increase was 0.3%. The 4-period moving average is showing an increase of 2-3% for unweighted but weighted has dropped to flat. 33 out of the 43 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%)

Learning Technologies

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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%

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%

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%

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

- 1. Data integration; Big Data
- 2. TV: Software compression and platforms
- 3. Virtual classroom and certifications driven by partner training
- 4. eLearning subscriptions
- 5. eLearning
- 6. Customers buying subscriptions to our online learning offering
- 7. Increase in customer sales resulted in increases across the board.
- 8. One-customer live training

- 9. Business process management
- 10. ILT Public Classroom Events
- 11. Industry-related strategy (not software training)
- 12. eLearning training
- 13. Technical Support
- 14. All of our classes. Currently we teach 3 courses, all ILT. I don't have any info on the ATC classes.
- 15. We taught a Situational Leadership course to internal management. We completed a WBT version of the Agent Tools course.
- 16. Troubleshooting
- 17. Classroom training for customers.
- 18. Private classes; Virtual classes; Learning Consulting; eLearning
- 19. Consultative based learning services; specifically, custom adoption program and subscription
- 20. Live online classes
- 21. Private in-person ILT; Architecture courses
- 22. Security, Data Center
- 23. All are growing >10% quarter on quarter
- 24. Private event programmes.
- 25. Private Trainings
- 26. None between quarters
- 27. Self-paced, certification
- 28. 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.
- 29. On-demand combined with Private ILT
- 30. Virtual classroom training, and public (scheduled) classes overall.
- 31. learning consulting
- 32. OnDemand (self-paced/eLearning)
- 33. TTT and onsite
- 34. eLearning
- 35. Advanced classes
- 36. Subscriptions
- 37. General company software growth.
- 38. Functional End User Training
- 39. Private Classes

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

- 1. TV: Hardware compression
- 2. Self paced non labor revenue as well as private
- 3. In-Center (=public) classes; Learning consulting
- 4. Older, legacy products; ILT

- 5. Public classroom training
- 6. End user courses
- 7. Self-Paced Online
- 8. Instructor-led training
- 9. Our trainer got laid off, so we're not offering Agent Tools in an ILT format.
- 10. Varied across smaller volume product lines
- 11. Internal training
- 12. Certification; Public ILT open enrollment
- 13. Private classroom
- 14. One-on-one training
- 15. Advanced development courses
- 16. Routing and switching
- 17. Public Classroom Training; Information governance training; Virtual Training
- 18. Virtual instructor-led training.
- 19. Public ILT
- 20. Subscriptions
- 21. Classroom training
- 22. Public Training (on premise), certification
- 23. Education consulting projects
- 24. Beginner classes/fundamentals
- 25. ILT student days
- 26. Technical Training

What were the two greatest challenges you faced in running

your business in the last 3-6 months?

- 1. Trying to get the details worked out to get a subscription model in place
- 2. Supporting enterprise customers who take loads of self-paced training at a heavy discount but expect white-glove support attention. Supporting Global SIs who are incorporating our training into their various LMSs (while we host it in the cloud).
- 3. Declining sales in overall TV business training revenue is a lagging indicator
- 4. Inadequate funding; Resourcing training delivery
- 5. Backlog replenish
- 6. Getting buy-in from Sales on training attach rate to deals; Tying efforts to key product adoption metrics
- No indication from leadership about whether they would like to see profits increase or make the systemic changes necessary to address challenges - Transparency and visibility into the Financial accounting
- 8. Sales not attaching training to their deals and launching a new LMS
- 9. Meeting demand. Maintaining a healthy instructor utilization number. We are way over utilized at the moment.
- 10. Keeping up with product changes. Getting customers to take free self-paced courses
- 11. LMS maintenance/stability; rapid elearning development due to declining ILT
- 12. Limited headcount; Added internal/employee training

- 13. Need to overhaul the portfolio to adopt new learning technologies (freemium models)- Go to Market model changed and not yet fully adopted
- 14. Pressure to give away video-based content; Trying to define a premium training subscription
- 15. Moving partners across to a new fee structure with supporting revised contracts. However, this has resulted in an increase of program fees quarter on quarter but will be offset through the year as much of it has just been pulled forward
- 16. Meeting demand. We currently have a 4-6 week lead time to deliver classes to our customers.
- 17. Converting all ILT content to WBT.
- 18. Keeping up with all product development- How to increase training demand
- 19. Getting qualified Instructional Designers. Getting Marketing around the new program offerings
- 20. Resources; budget
- 21. Tools and technology continue to be a challenge for us. Global requirements and entry into APJ specifically, covered by NA based team.
- 22. Keeping up with growth while maintaining excellence in delivery. Keeping up with product changes.
- 23. Development/engineering resources for furthering technology used for learning
- 24. Meeting reporting needs of Field; Addressing portfolio needs of partners
- 25. Decrease in ILT purchases; Delivering in more regional languages
- 26. Identifying ATP's in Asia
- 27. Moving back to a revenue generating model selling training again; Increase training offerings in local languages
- 28. Working with sales to sell training on deals. Juggling priorities between strategy, content development and daily business with a small team.
- 29. Budget, volatility
- 30. 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.
- 31. Reduction in Bookings and erosion of backlog in order to sustain Revenue.
- 32. Some revenue associated with private training events is not recognized as Education in financial reports. Insufficient number of Education sales reps.
- 33. Operational inefficiencies in learning management and registration
- 34. Maintaining Margins with Bookings Decrease; Sales and Marketing support of Training
- 35. Implementation project delays causing delays in customers attending training and user adoption projects
- 36. Scaling organization to meet demand. Scaling technology infrastructure to meet demand.
- 37. Delivery (resources to teach our classes). Engagement of a specific subset of our community to come to classes.
- 38. Funding of new technologies; Updating team skillset
- 39. Getting new online mentoring program in place and fixing how people find our courses
- 40. Sales mindshare. Being downstream of company's strategic change. Pressures to further increase efficiency.

- 41. 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.
- 42. The current systems we use to sell and track training (LMS and SFDC) are hampering our ability to easily sell and creatively package training offerings. Change management involved in moving from a free training model to a paid training model. Internal behaviors are difficult to change.

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

- 1. Customer expectations for the quality of the self-study experience continue to go up.
- 2. 2 years into my present role and I am convinced the Telecommunication industry is sluggish, change-averse and slow to innovate. As a small vendor playing in a space with big names, we're constantly struggling to keep Education Services relevant.
- 3. Customers are not very tolerant of long ILTs, they want just in time and on demand training
- 4. Larger enterprise customers are more likely to invest in training.
- 5. As a startup, we're starting to see pressure to monetize more activities in training
- 6. 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.
- 7. Consumption of training found to be about the same for customers who paid vs. customers who did not. Poor consumption in general.
- 8. Seems to be interest in Subscription Program.
- 9. My management keeps giving bigger discounts and more free training to partners, eroding funding sources for department.
- 10. Customers are moving away from Brick & Mortar classroom training.
- 11. I see instances of customers, not completing or at times not even take the training.
- 12. 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.
- 13. Many more customers expect "free basic training" with their software because they can You Tube 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.
- 14. More demand for micro-learning
- 15. SIs demanding greater training discounts
- 16. People still want ILT as a premium service and sales people try to give away too much training.
- 17. IT & 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.
- 18. Launch of a Change Management practice has shown promise
- 19. With the exception of our annual customer conference, there is ZERO market for public, in-person training classes. We are 100% virtual now.