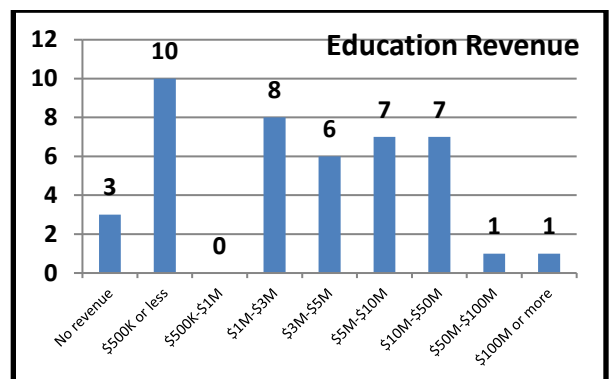
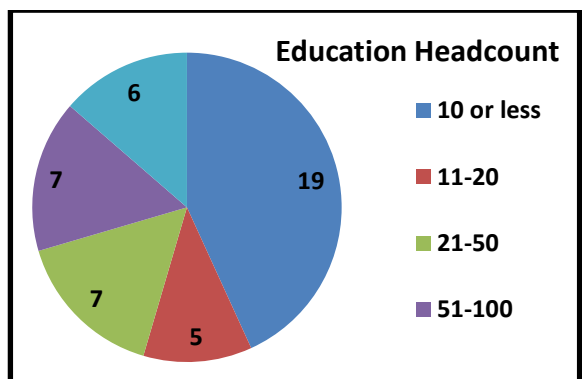
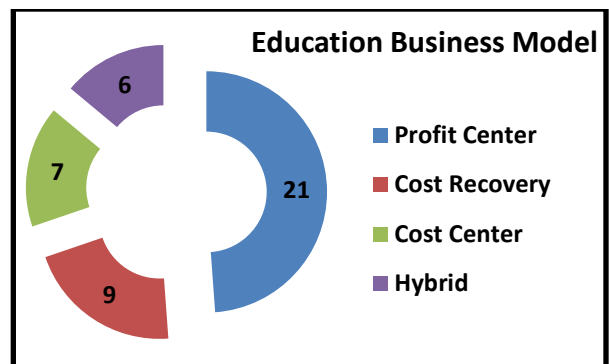
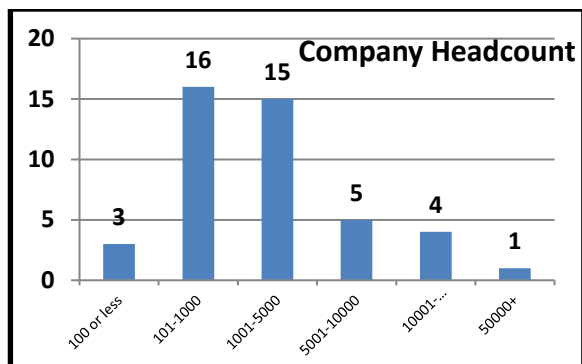
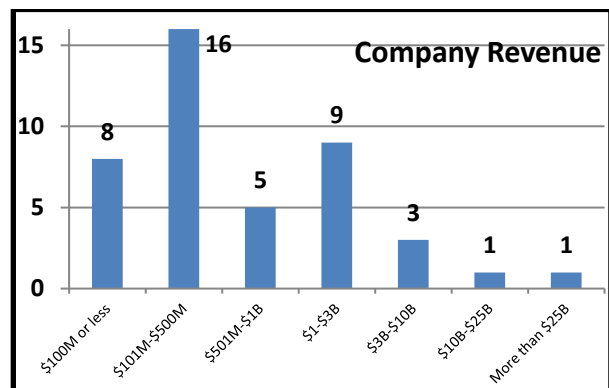
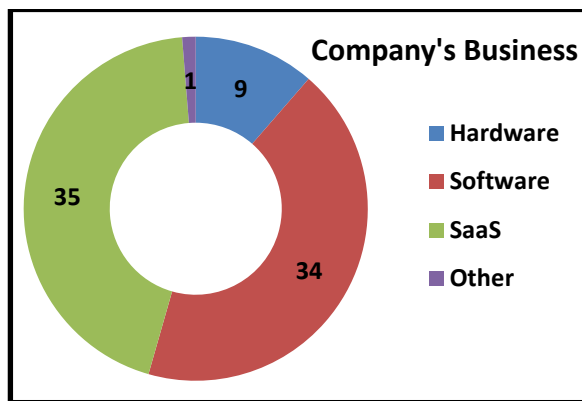




CEdMA Training Market Barometer 3rd Quarter 2017 Actual

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 $\pm 12.5\%$. 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 36 responses for global and 8 for North America so the combined 44 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 has now dropped from 5% to 2% increase in just over a year.

Operating profit is revenue minus all fixed and variable costs, excluding allocations, divided by revenue. The growth is now 2% year-on-year, down from 4% over the last year.

Live Classroom (ILT) is all revenue when the instructor is in the same physical location. Growth was flat in 2013-14 but has been 2% for over two years.

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 dropped to negative 2%, having peaked at 2% in 2014.

Private (one-customer) classes is revenue for ILT and VILT, and now showing an increase of 5-6%, 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 still 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/VILT/self-paced. The trendline is still 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 17Q3 there was a decrease of 3.9%, with the trendline at negative 2%.

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 quarters of 2016, revenue has remained flat since then, with the trendline now flat.

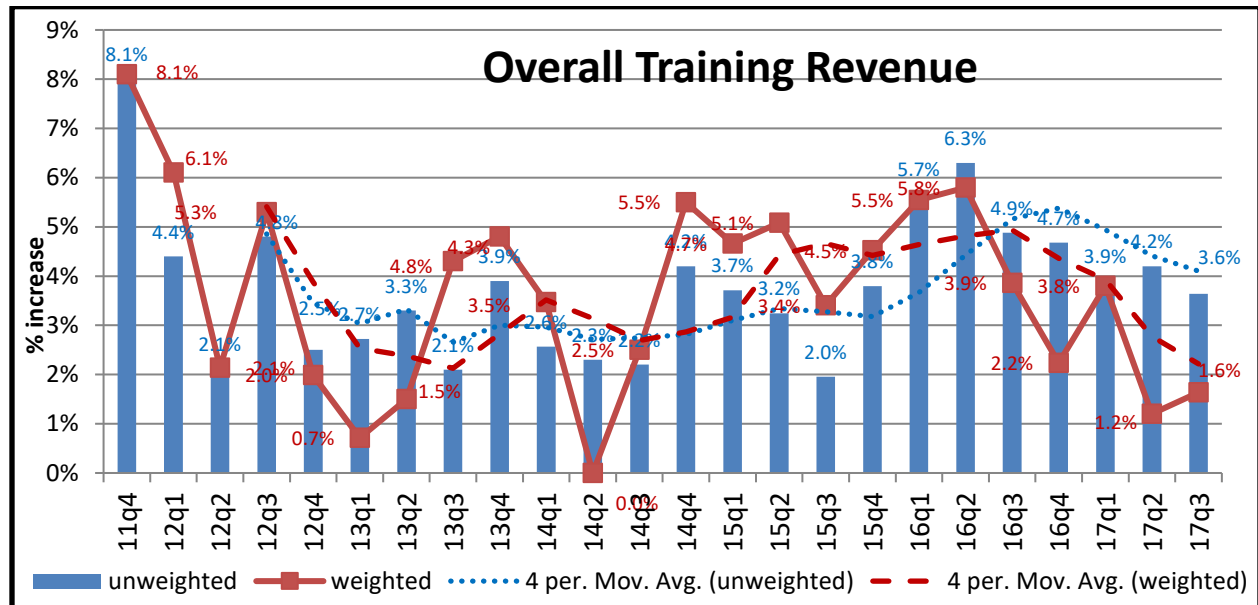
New Learning Modalities is all revenue for social learning, gamification, microlearning, mobile. After increases of 7-12% in the first three quarters of 2016, quarters since then have remained flat year-on-year, so the trendline has fallen to flat.

Subscriptions include all revenue from any of the above modalities included in subscriptions.

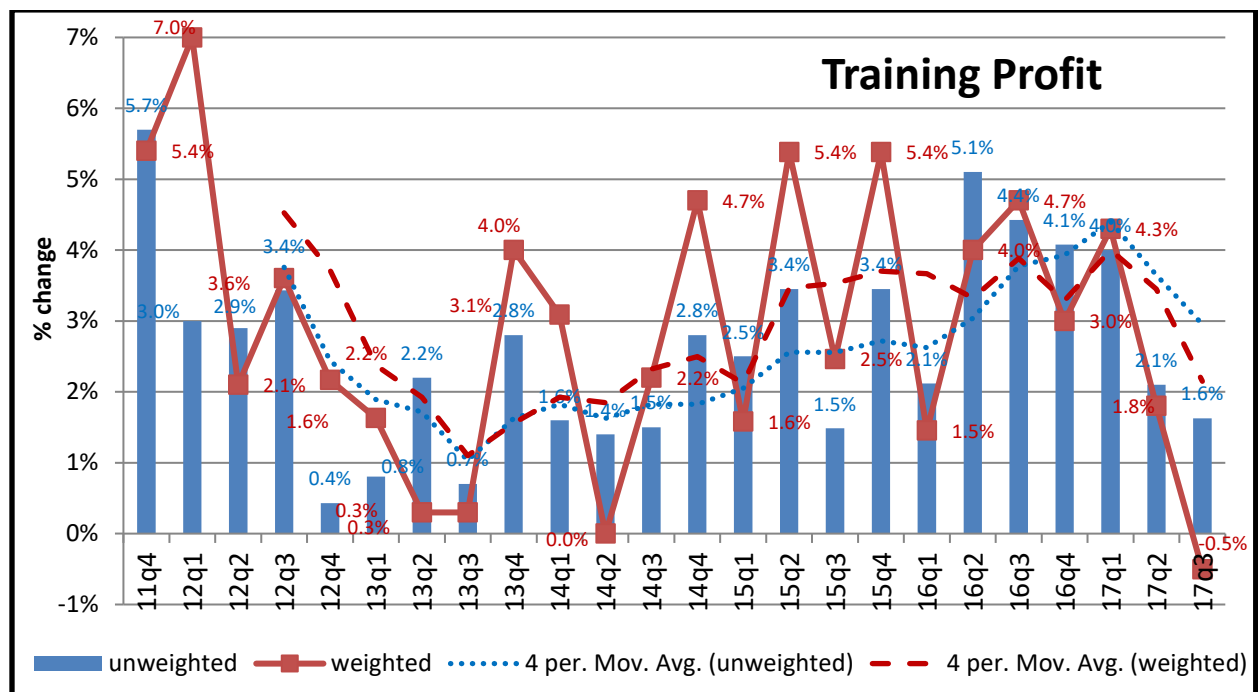
Subscription revenue grew on average 8% during 2016, with the trendline in 2017 now around 5%.

Training Revenue and Profit

The unweighted total training revenue increase for 17q3 (u=26, f=4, d=14) was 3.6%. The weighted total training revenue increase was 1.6%. The 4-period moving average is currently showing an increase of 4% for unweighted and 2% for weighted, down from 5% a year ago.

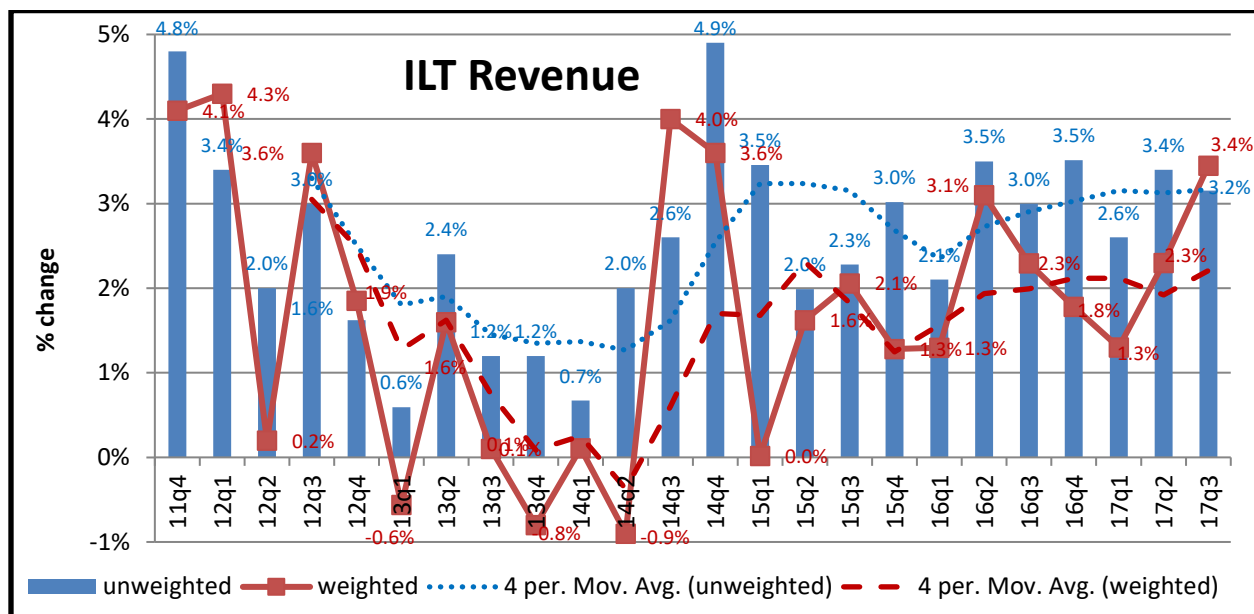


Training profit in 17q3 (u=19, f=13, d=11) was a 1.6% increase unweighted, but -0.5% weighted. The training profit four-period trendlines currently show a 3% increase unweighted but 2% weighted, the latter down from 3-4% a year ago.



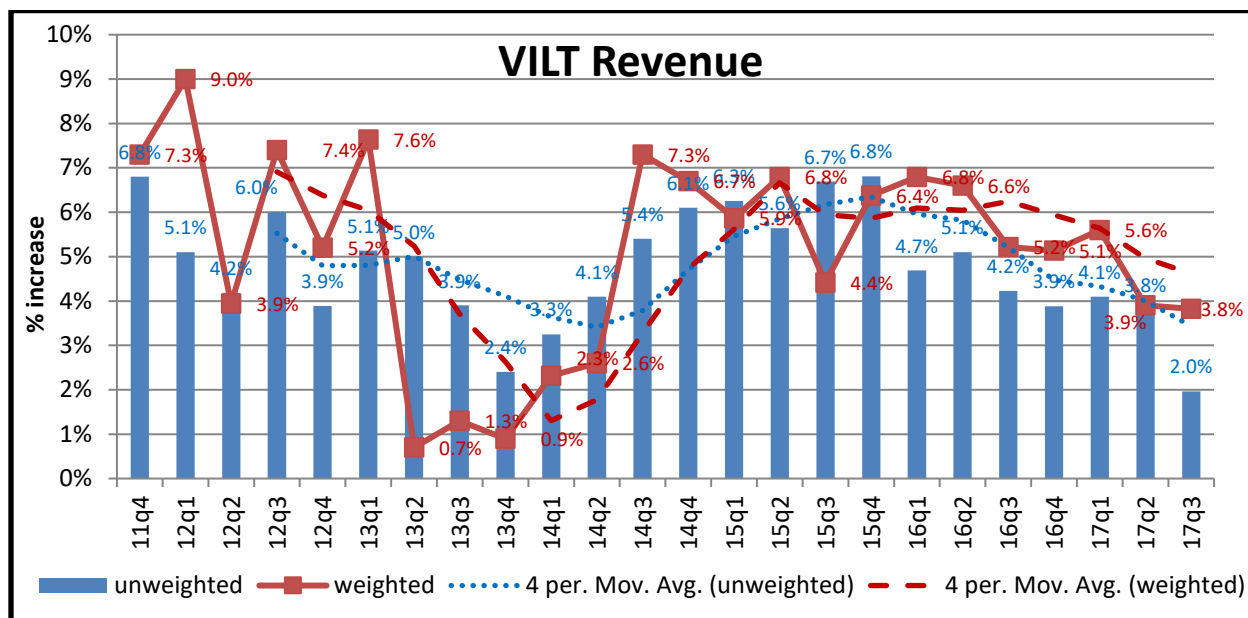
Live Instructor-led Training

The unweighted live classroom **revenue** increase for 17q3 (u=20, f=11, d=11) was 3.2%. The weighted live classroom volume increase was 3.4%. Live classroom revenue, therefore, is still holding up! The 4-period moving average is 3% increase unweighted and 2% increase when weighted.

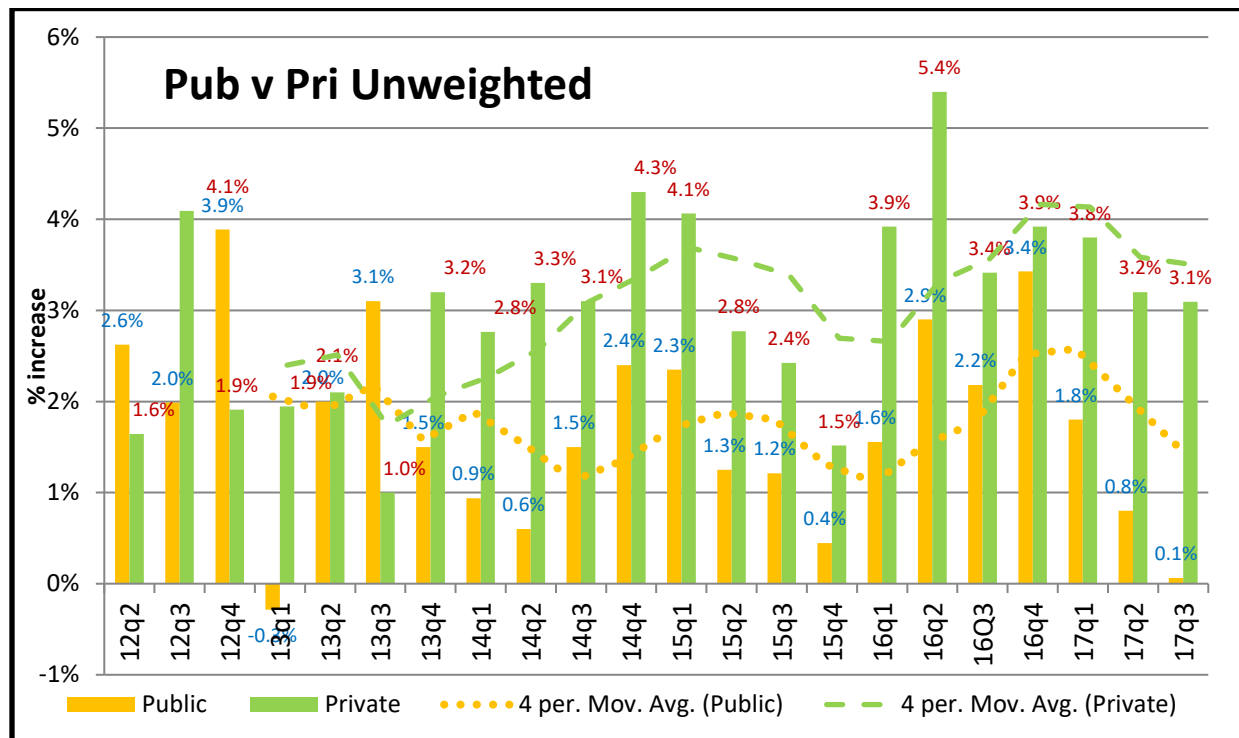


Virtual Instructor-led Training

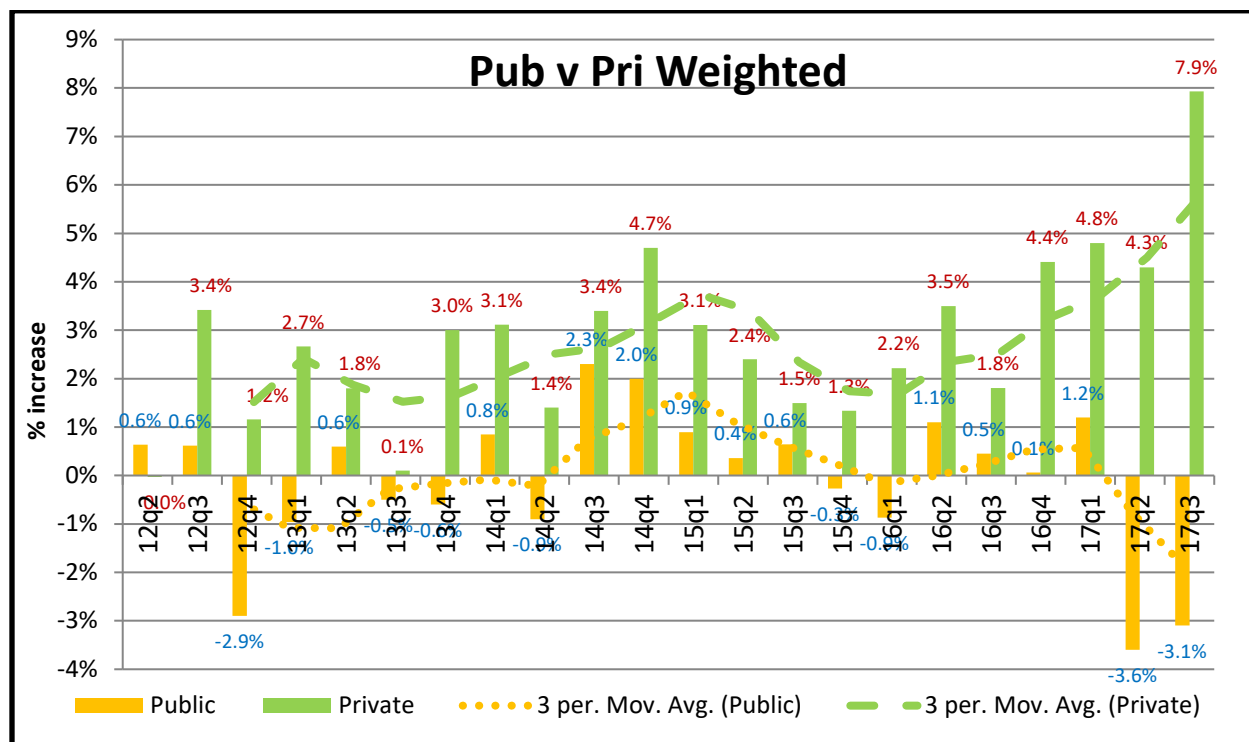
Virtual classroom on the other hand has been growing faster, apart from a small dip in 2013-14. The unweighted virtual classroom **revenue** increase for 17q3 (u=20, f=13, d=9) was 2.0%. The weighted virtual classroom volume increase was 3.8%. The 4-period moving averages for unweighted has dropped to 3-4% but weighted is just under 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 17q3, by 0.1% public and 3.1% private. The trendline for public is 1-2% and for private is 3-4%. (Note that public is u=12, f=15, d=15 and private u=22, f=12, d=8.)

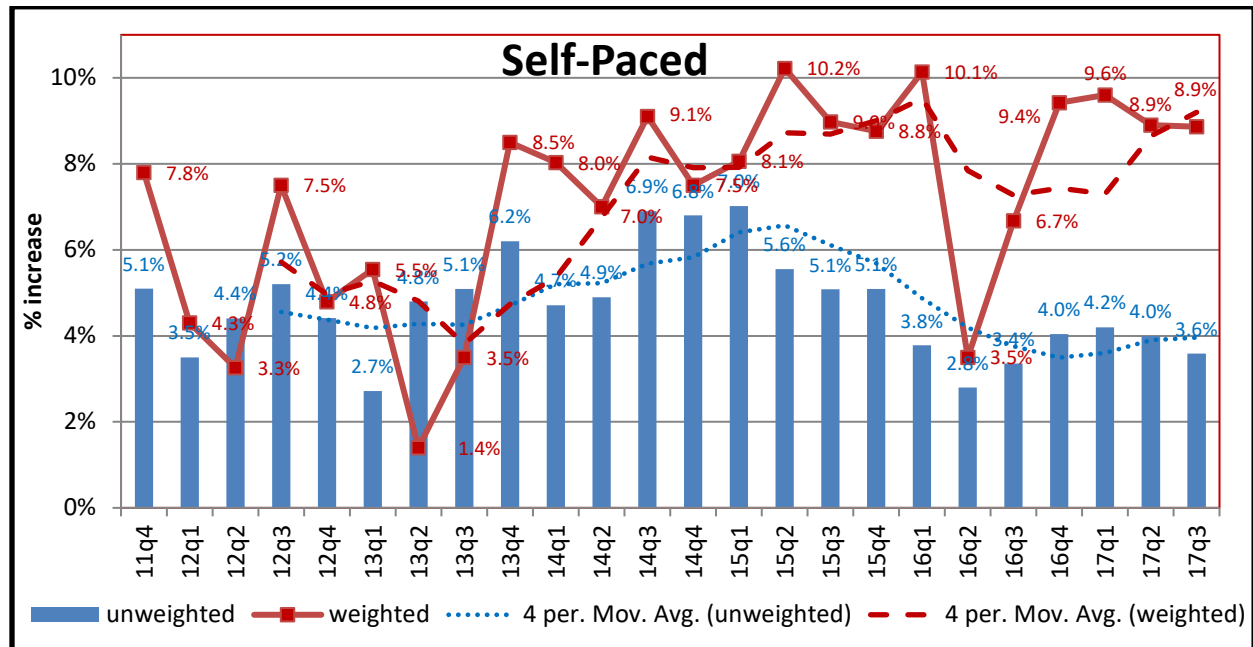


When weighting is considered, the changes are less dramatic, except for 17q2 and 17q3. In 17q3, public **revenue** has decreased 3.1% but private **revenue** has increased 7.9%. The 4-period moving average is negative 1-2% for public but is a 5-6% increase for private.



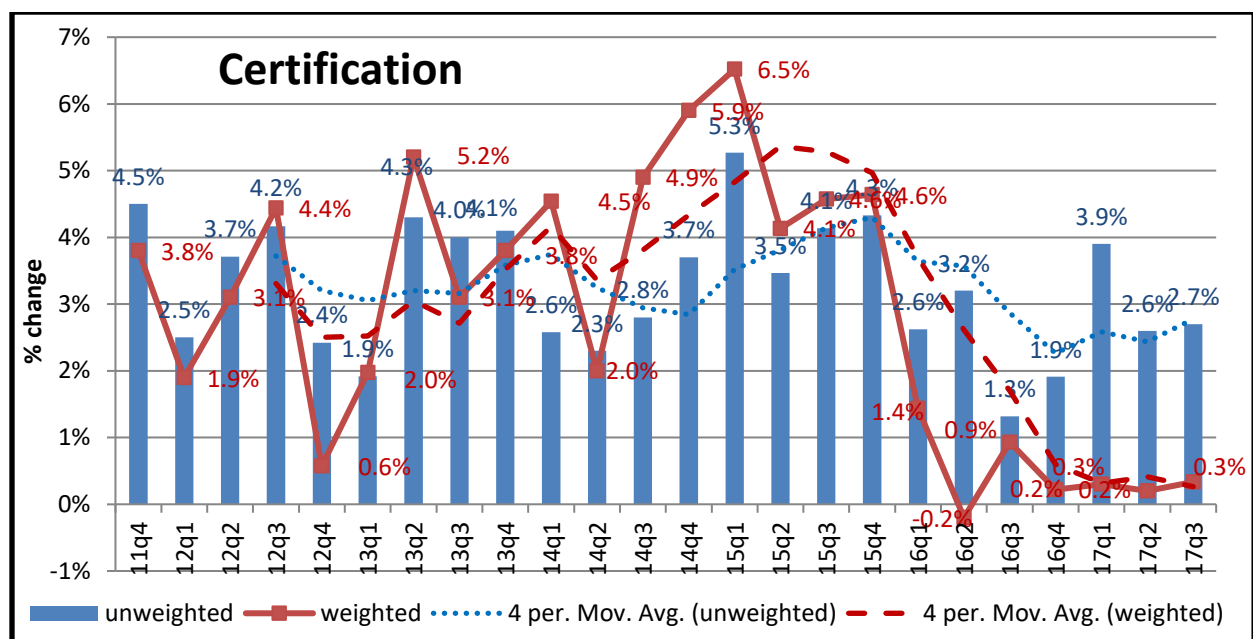
Self-Paced

The unweighted self-paced **revenue** increase in 17q3 (u=18, f=19, d=2) was 3.6%. However, the weighted self-paced **revenue** increase was 8.9%, the same as last quarter. The growth remains higher than virtual classroom. The 4-period moving average shows a 4% increase for unweighted and 9% for weighted.



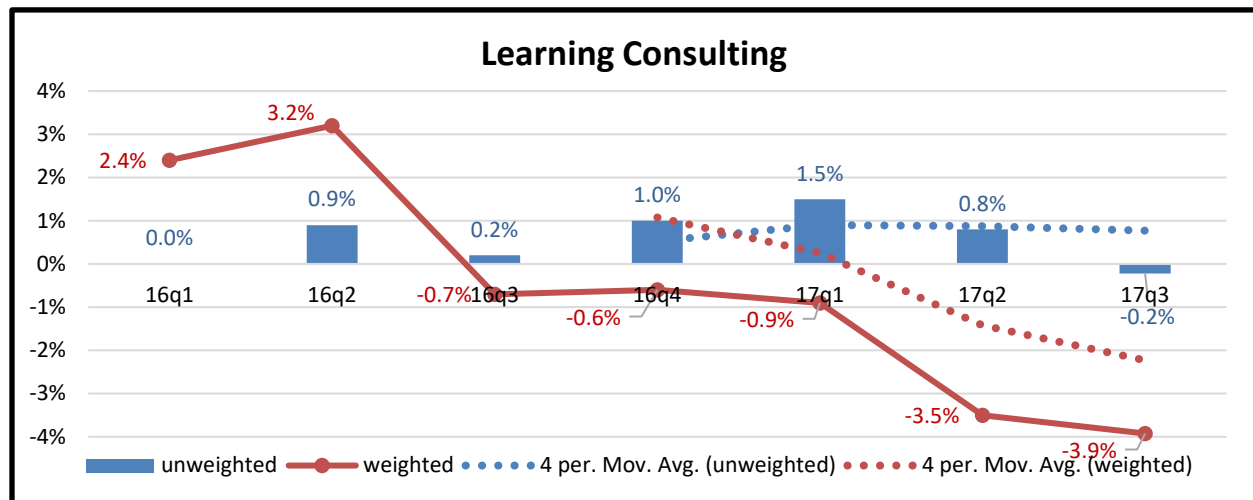
Certification

The unweighted certification **revenue** increase for 17q3 (u=12, f=21, d=5) was 2.7%. 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.



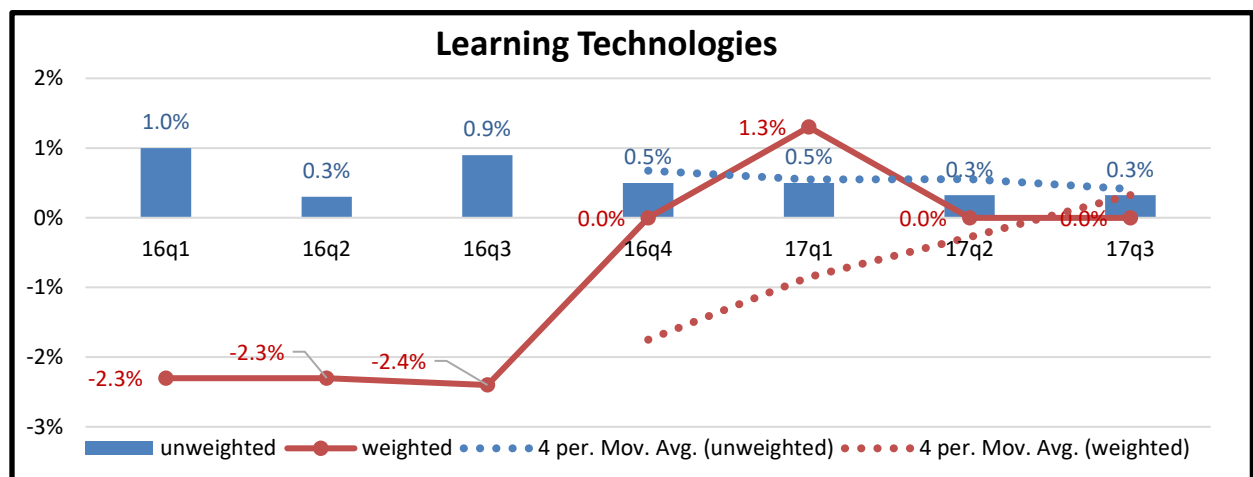
Learning Consulting

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%)
17Q3	34	6	25	3	(0.2%)	(3.9%)



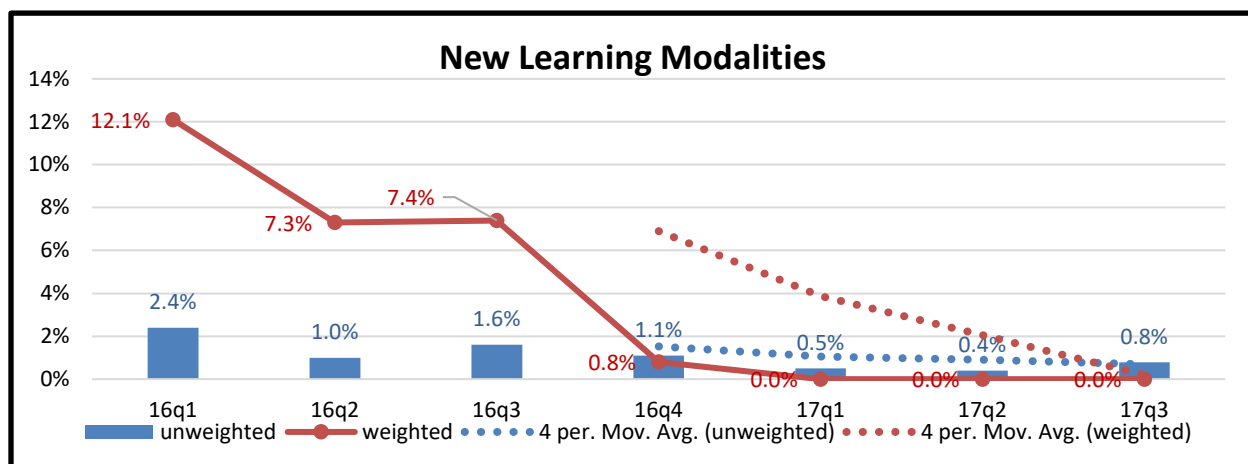
Learning Technologies

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%
17q3	31	2	29	0	0.3%	0.0%



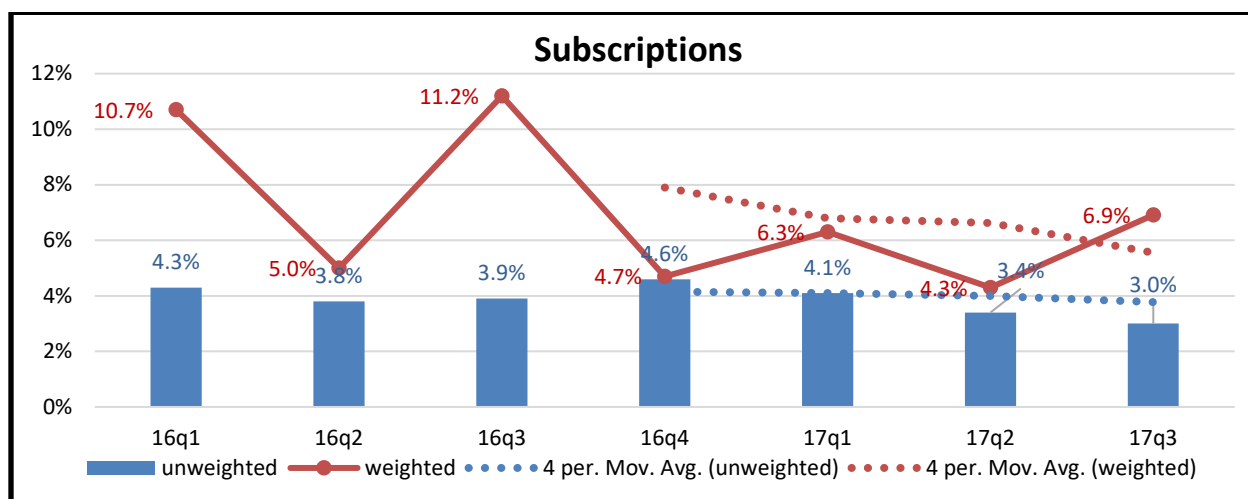
New Learning Modalities

Period	# responses	# up	# flat	# down	unweighted	weighted
16q1	30	9	21	0	2.4%	12.1%
16q2	31	4	27	0	1.0%	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%
17q3	32	4	28	0	0.8%	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%
17q3	35	13	19	3	3.0%	6.9%



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

1. New courses have increased the number of students taking public instructor classes
2. Customized, onsite training.
3. Functional End User Training
4. eLearning subscriptions
5. Live online classes
6. All of our classes. Currently we teach 5 courses, all ILT. I don't have any info on the ATC classes.
7. Our revenue from courses for sale increased slightly. Revenue from implementation support/training was up due to the busy time of the year.
8. Advanced classes
9. With an expanding eLearning library, this modality has improved over the last quarter.
10. Private courses, both virtual and at the customer site
11. Subscription based on-demand learning, especially multi-year term
12. WorkForce Management - Cloud Based
13. eLearning training and instructor-led training
14. Apache Spark; Apache Hadoop
15. Self-paced
16. Private training
17. OnDemand (self-paced/eLearning)
18. Private event programmes.
19. Private Classes
20. The need for individual purchase of one-time events
21. Open enrollment
22. Security and customized content
23. Onsite (private) classes
24. We are launching our LMS in a week. All other projects were removed.
25. Self-paced, certifications
26. Infrastructure automation management; Collaboration
27. eLearning and onsite instructor-led
28. Business process management
29. Big Data; Data Stewardship
30. eLearning subscriptions
31. Classroom training for customers
32. Self-Paced On-demand training; We converted to a Subscription model.
33. Onsite training. Keeps on ticking...
34. All our core products
35. Cloud; In-memory database; Supply chain
36. YOY organic growth across all software products.
37. eLearning
38. ILT, vILT, on-demand are all up
39. Essentials training
40. Self-study, corporate decision to make self-study courses be free for an extended period of time

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

1. Self-paced gated by the LMS
2. Certification.
3. Technical Training
4. Public training
5. One-on-one training & live webinars
6. Beginner classes/fundamentals
7. Public training has decreased significantly over the last quarter and modestly year-over-year.
8. Education consulting projects; Public virtual ILT
9. Public ILT
10. Premise based
11. SQL
12. classroom training
13. Public training
14. Public Training (on premise), certification
15. Onsite
16. More established products
17. certifications
18. Our trainer got laid off, so we're not offering Agent Tools in an ILT format. We still have no permanent staff, only contractors.
19. Certification
20. Virtual instructor-led training.
21. End user courses
22. Enterprise service bus
23. In-Center (=public) classes; Learning consulting
24. Internal training
25. Certification, because we started charging for the Online training.
26. Beginner-level training classes.
27. Industry specific training
28. Virtual classroom and certifications driven by partner Training; ILT/VLT and WBT
29. Older, legacy products; ILT
30. Instructor Led Training student days

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

1. Getting students to take our multi-day public classes; Keeping up with content development needs.
2. Enterprise license sales; Resources and staffing.
3. Keeping up with growth while maintaining excellence in delivery; Keeping up with product changes.
4. 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.
5. Move of customer to less time-consuming education; Delays within Sales cycles

6. Development/engineering resources for furthering technology used for learning
7. Meeting demand. We currently have an 8/10-week lead time to deliver classes to our customers.
8. First 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. Second, working with leadership to understand why it is not in our or our customers best interest to just use all video for training.
9. Delivery (resources to teach our classes). Engagement of a specific subset of our community to come to classes.
10. We are starting to see cannibalization of training revenue related to field SEs delivering free training rather than sell a solution. Particularly in the Americas. Company is tightening budgets to the point where only "free" solutions to challenges are considered. Investing in staff development, tools & technology are significantly impacted.
11. Implementation project delays causing delays in customers attending training and user adoption projects. Less than expected product sales with attached education
12. Reduction in Public ILT demand, especially in N America
13. Partner fees; Revenue through product attach - and reduced product sales
14. Planning around expected acquisition close.
15. Doing more with less people; doing more with same budget
16. Operational inefficiencies in learning management and registration
17. Management and balance of non-revenue generating demands like internal and partner training requirements. Internal business processes outside the Education organization that have a direct impact on our business outcomes.
18. Greater percentage of our revenue is from credits in programs we don't manage. Credit values are lower than ours, impacting our P&L.
19. Agile development of on-demand content; Instructor utilization
20. Attaching training credits to product sales.
21. Growing our training attach to new biz license deals. Our leadership team approved hefty field team and partner spiff incentives which proved important drivers. Also, was able to get executive approval for mandatory attach on new business deals above a certain ARR threshold. Big Win. I used CEDMA benchmark data to show that we would not be alone if we went this route as a company.
22. Sales
23. Keeping up with product changes; Marketing training
24. Keeping up with all product development; How to increase training demand
25. What may be perceived as 'internal competition' of similar services (pairing, knowledge sharing, workshops, consulting); attachment to license
26. Boss was fired. New boss has limited knowledge of training and has changed our priorities again.
27. Budget, volatility
28. Continuing to market ourselves to sales departments; Improving the quality of our eLearning.
29. Rapid elearning development
30. Cheating on certifications; Getting partners to prepare in advance of need
31. Need to overhaul the portfolio to adopt new learning technologies (freemium models); Go to Market model changed and not yet fully adopted
32. Getting qualified Instructional Designers; Getting Marketing around the new program offerings
33. 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.
34. Competing with Sales' mindshare to get training included in deals; Discounting pressure
35. Getting curriculum developers used to the idea of working in a more modular format; Hiring - seeing fewer qualified candidates lately

36. Attach rates
37. Switch from on-premise to cloud business model
38. Backlog replenish
39. Access to quality data and reporting; Being downstream of company's strategic change.
40. - No indication from leadership about whether they would like to see profits increase or make the systemic changes necessary to address the challenges below; Transparency and visibility into the Financial accounting- Coming to terms with the tendency of
41. Capturing top line revenue from ATCs; Backfilling training sales position.
42. Inadequate funding; Resourcing training delivery
43. Acceptance and marketing of new online mentoring program; Broadening digital strategy for people to find and book courses.

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

1. 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.
2. Launch of a Change Management practice has proved a popular addition to Education Services offerings. Where we sell Change Management, we also see an increase in overall education attachment.
3. We have seen a growing demand for virtual classes. I believe it's to save on attendee travel expenses.
4. 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; no changes to my previous answers.
5. Growing Customer expectation for fixed price contracts over a 3-year term
6. Consumption of training found to be about the same for customers who paid vs. customers who did not. Poor consumption in general. Strong correlation found between customers who did not consume training and churn.
7. More demand for micro-learning
8. In Europe, we are competing on the quality, not the price of training (we are not underselling the value of Education).
9. SIs demanding greater training discounts; LMS market ripe for disruption; Grey Market, MOOCs, and outfits like O'Reilly continually putting pressure on tech training; Without buy-in from sales leadership, and commission plans which require services focus, it is difficult to grow the business.
10. We now have a full services training organization in place and a team that can execute. I have also recently launched a marketplace to provide individual purchase of training offerings. These complement subscriptions sold at the account level.
11. Our partnership with Pluralsight (now at 6 months maturity) has seen us reach a scale of trained users that we would not see otherwise in any of our other methods of delivery and at this volume (over 6,000 trained in less than 6 months) - while we only have a royalty model in place and do not see the full revenue like other companies that count on this method for margin, we have made up for it in scale.
12. Seems to be interest in Subscription Program.

13. 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.
14. Regulatory compliance in Europe is a driver of demand right now.
15. We are a SaaS based company, we are seeing more solutions in the cloud. This does bring a different opportunity to the training organization.
16. It seems like certification is seeing some decline in the IT industry. Maybe it's just my cohorts and I?
17. Introduction of Training Units helped booking growth.
18. 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.
19. 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.
20. Balancing the message that corporations need Instructor Led training for better adoption and ROI as a quick start vs. sales individuals defaulting to free training