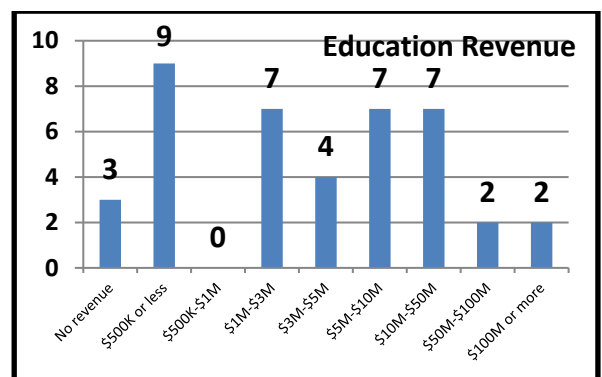
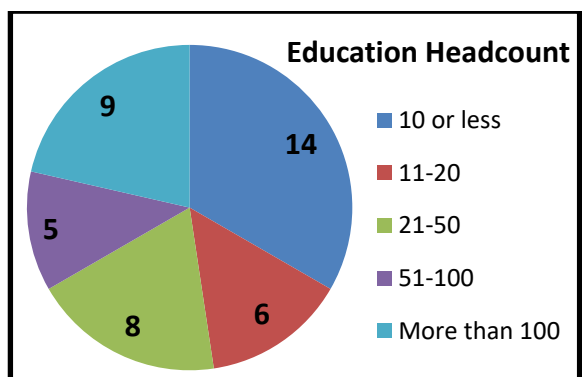
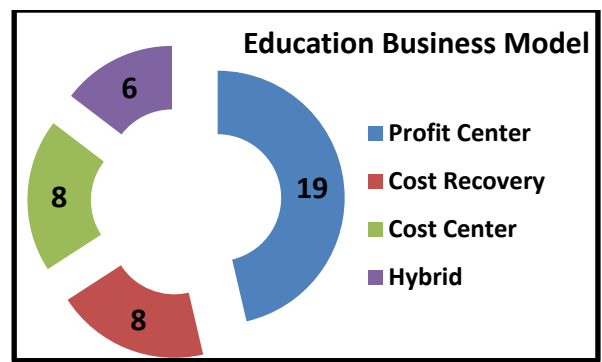
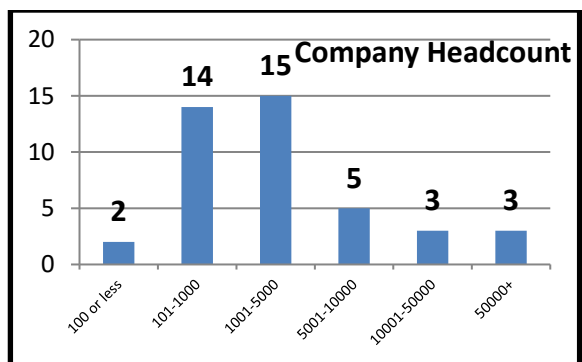
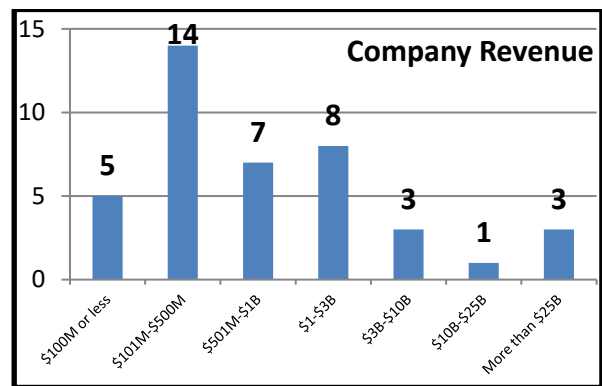
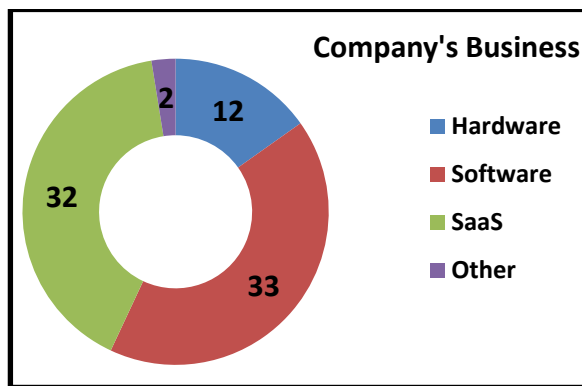




CEDMA Training Market Barometer 4th Quarter 2017 Actual

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 33 responses for global and 9 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 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% in 2016 to 3% in 2017.

Operating profit is revenue minus all fixed and variable costs, excluding allocations, divided by revenue. The growth in 2017 was 2% year-on-year, down from 4% in 2016.

Live Classroom (ILT) is all revenue when the instructor is in the same physical location. Growth was flat in 2013-14, 2% in 2015-16 but 1-2% in 2017

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, was 6% in 2015-16, but has now dropped to 3% in 2017.

Public (scheduled) classes is revenue for ILT and VILT and has now dropped to negative 4% in 2017, having peaked at 1-2% in 2014, and been flat in 2015-16.

Private (one-customer) classes is revenue for ILT and VILT, and now showing an increase of 4% for 2017, having been 3-4% in 2014, 2% in 2015 and 3% in 2016.

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 showing a 9% increase in 2017, having grown steadily from a 5% 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 dipped under flat for 2017, falling from 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 1% in 2016, but the trendline is now showing negative 1% for 2017.

Learning Technologies is all revenue generated by learning tools, infrastructure, courseware and directly related training and learning consulting for these technologies. After showing negative 2% in 2016, the trendline is now just under positive 2%.

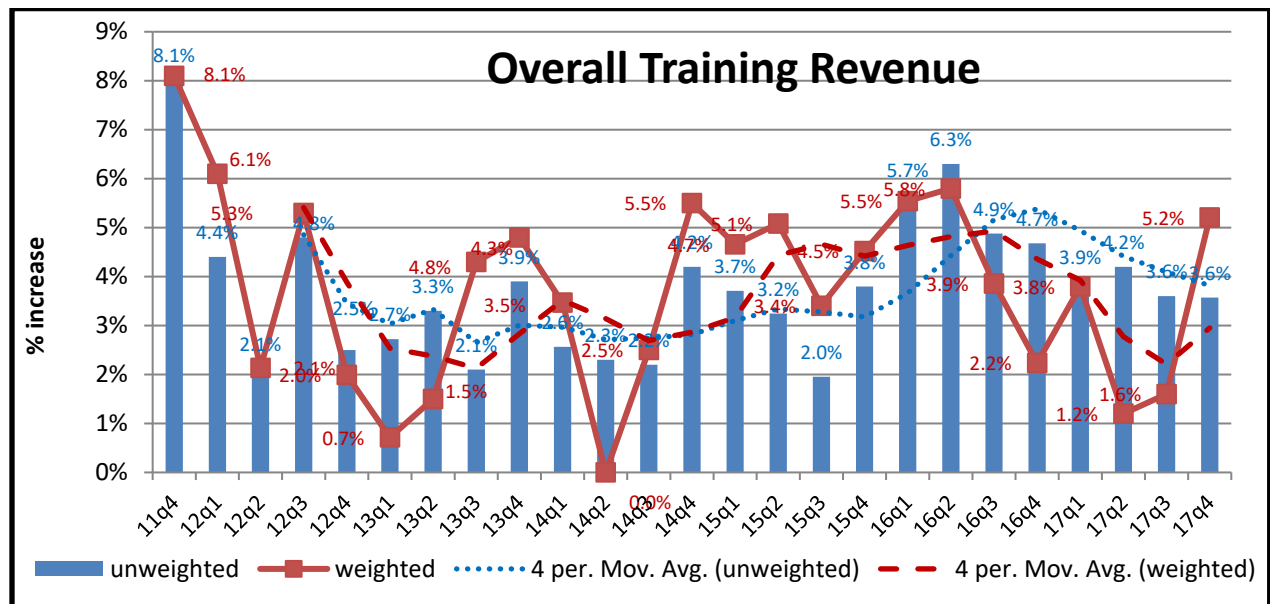
New Learning Modalities is all revenue for social learning, gamification, microlearning, mobile. 2016 showed the trendline at 7%, but 2017 saw that erode to flat.

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

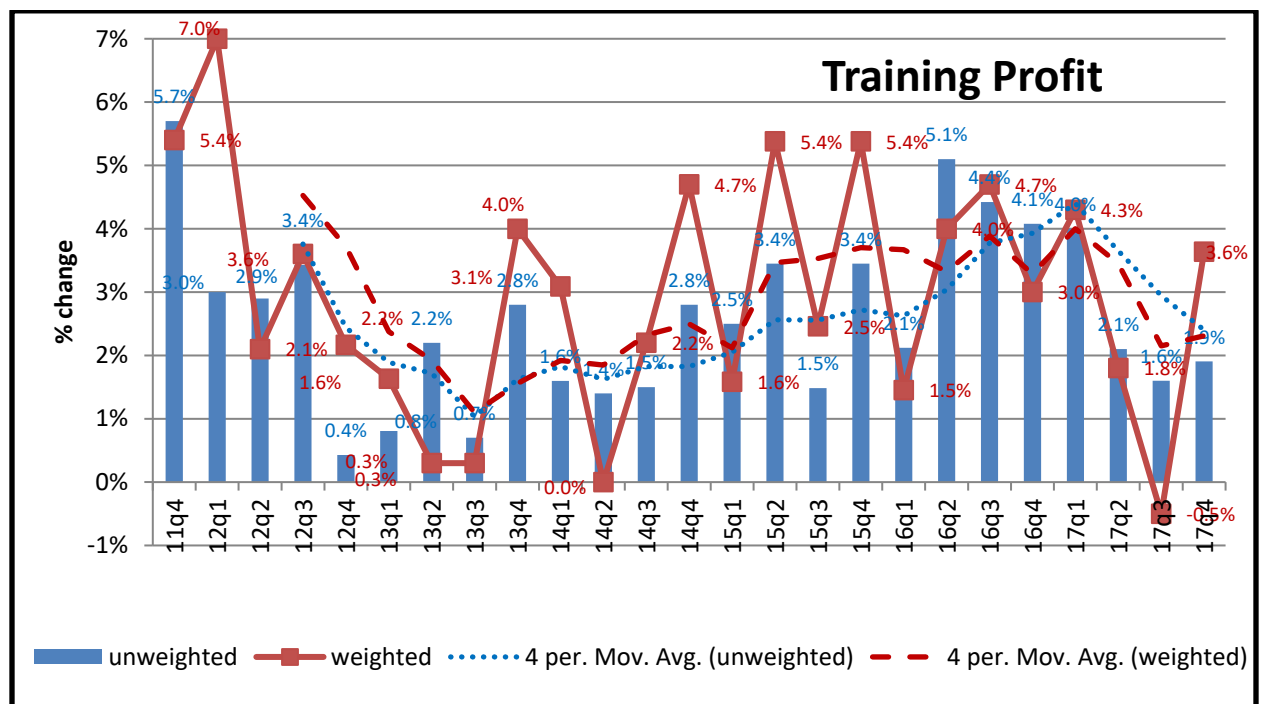
Subscription revenue grew on average 8% during 2016, with the trendline in 2017 now 6-7%.

Training Revenue and Profit

The unweighted total training revenue increase for 17Q4 (u=23, f=7, d=8) was 3.6%. The weighted total training revenue increase was 5.2%. The 4-period moving average is currently showing an increase of 4% for unweighted and 3% for weighted, down from 5% a year ago.

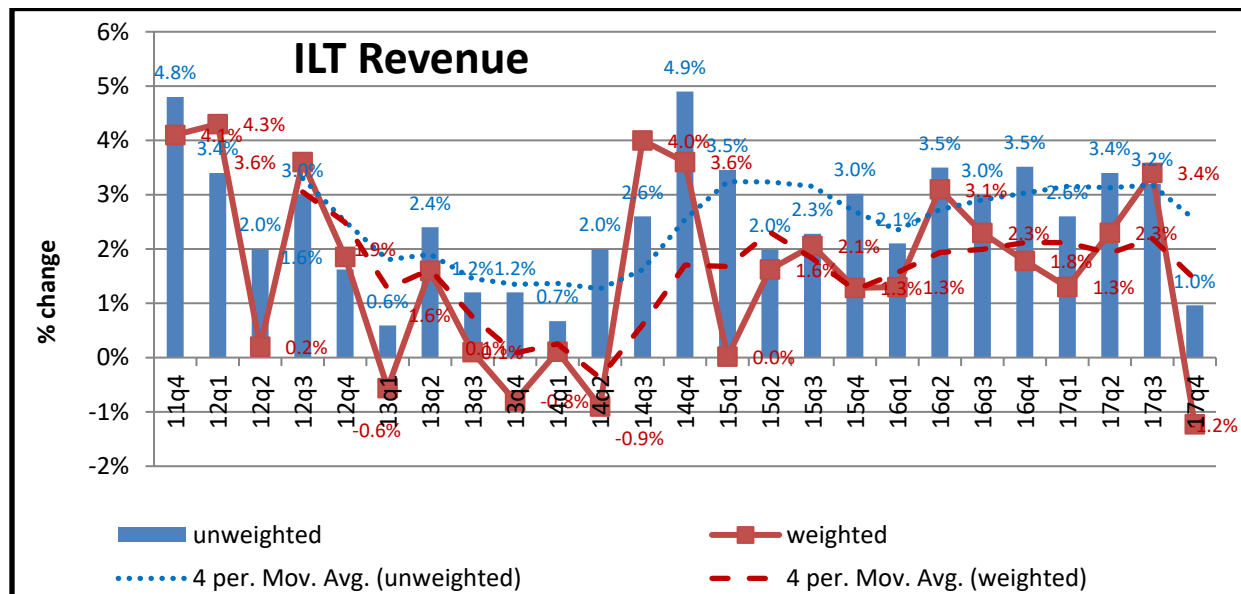


Training profit in 17Q4 (u=20, f=14, d=8) was a 1.9% increase unweighted, and 3.6% weighted. The training profit four-period trendlines currently show a 2% increase both unweighted but and weighted, the latter down from 3-4% a year ago.



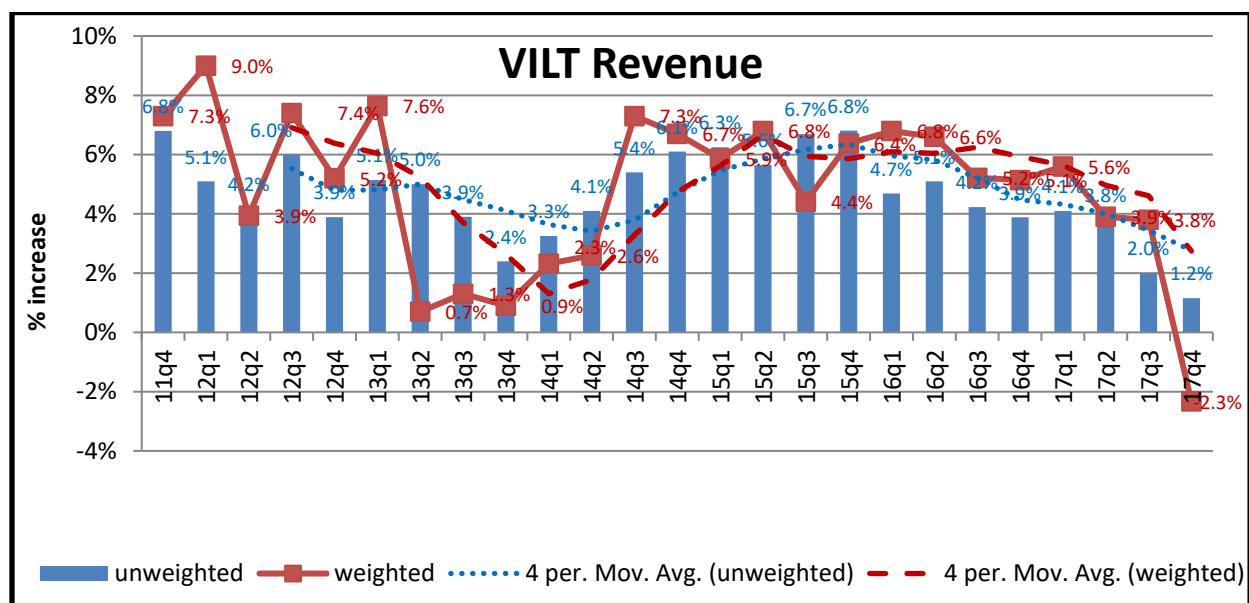
Live Instructor-led Training

The unweighted live classroom **revenue** increase for 17Q4 (u=14, f=10, d=9) was 1.0%. The weighted live classroom volume decrease was 1.2%. The 4-period moving average is 2-3% increase unweighted and 1-2% increase when weighted.

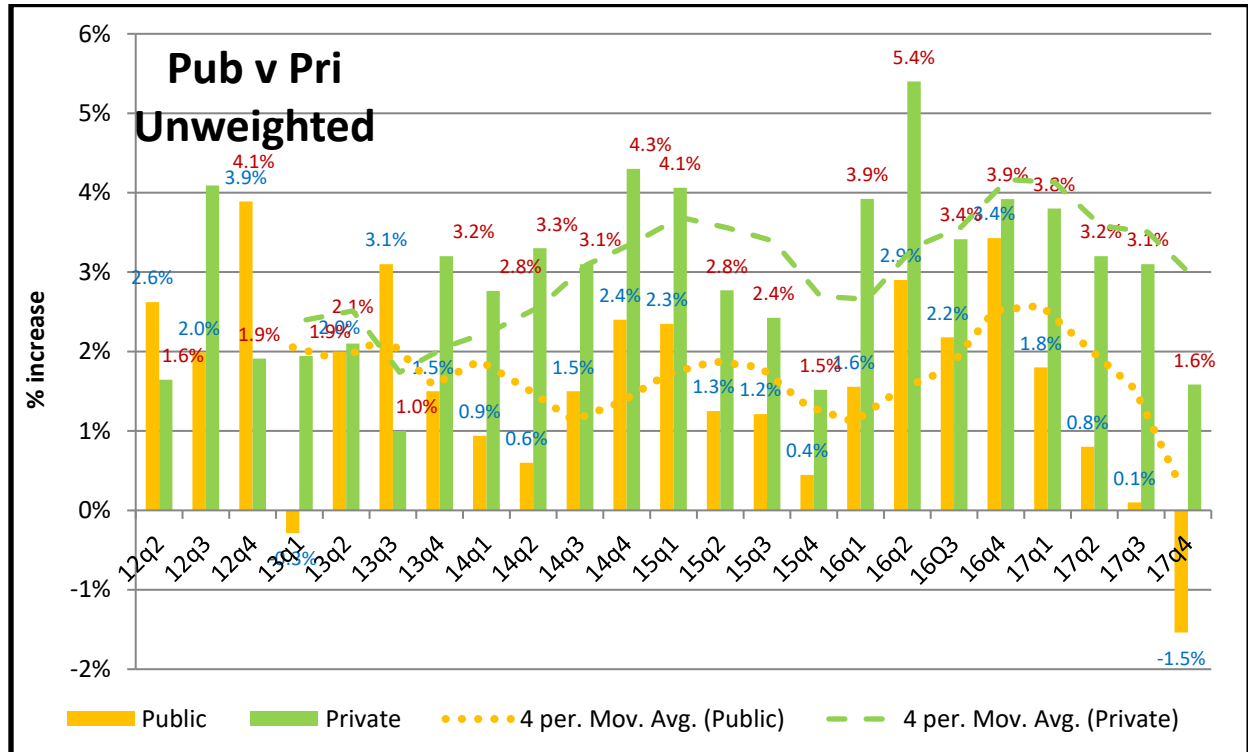


Virtual Instructor-led Training

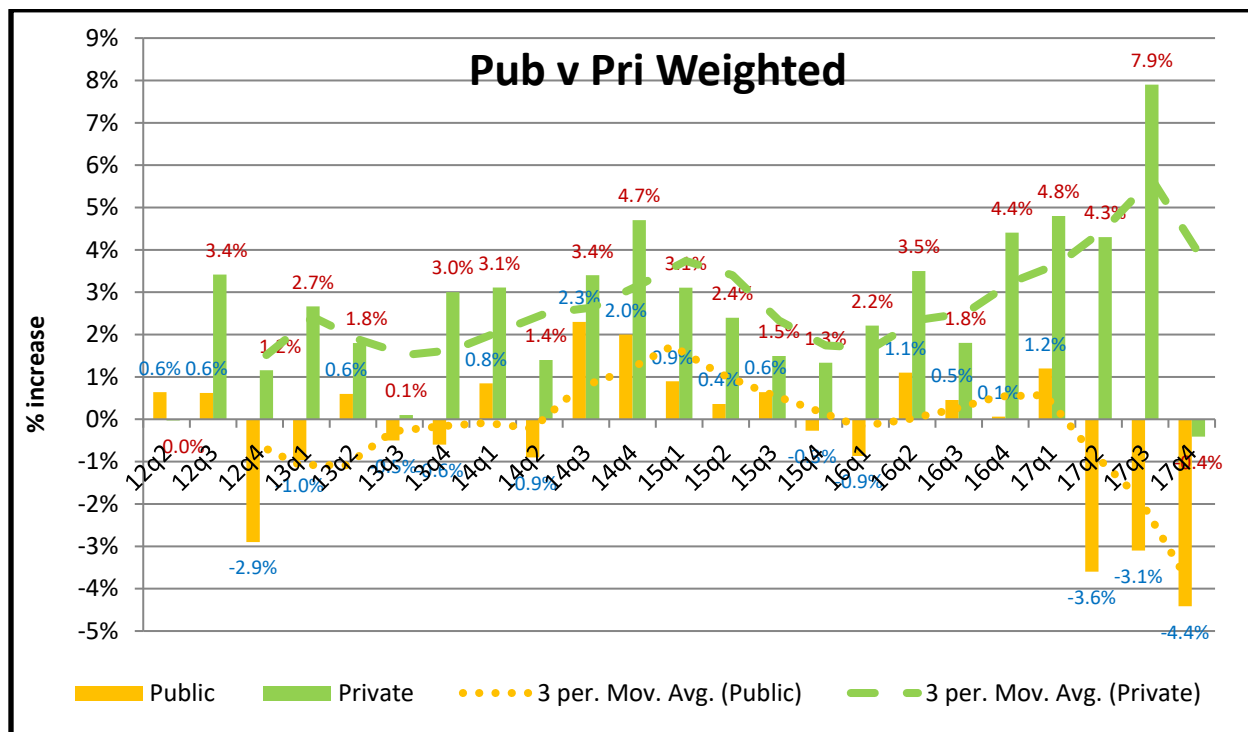
Virtual classroom seems to have taken a turn for the worst. The unweighted virtual classroom **revenue** increase for 17Q4 (u=15, f=13, d=6) was 1.2%. The weighted virtual classroom volume decrease was 2.3%. The 4-period moving averages for both unweighted and weighted have dropped to 3%. Live and virtual 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. Public **revenues** have decreased in 17Q4 by 1.5% but private increased by 1.6%. The trendline for public has dropped to flat and for private is 3%. (Note that public is u=8, f=13, d=12 and private u=15, f=10, d=8.)

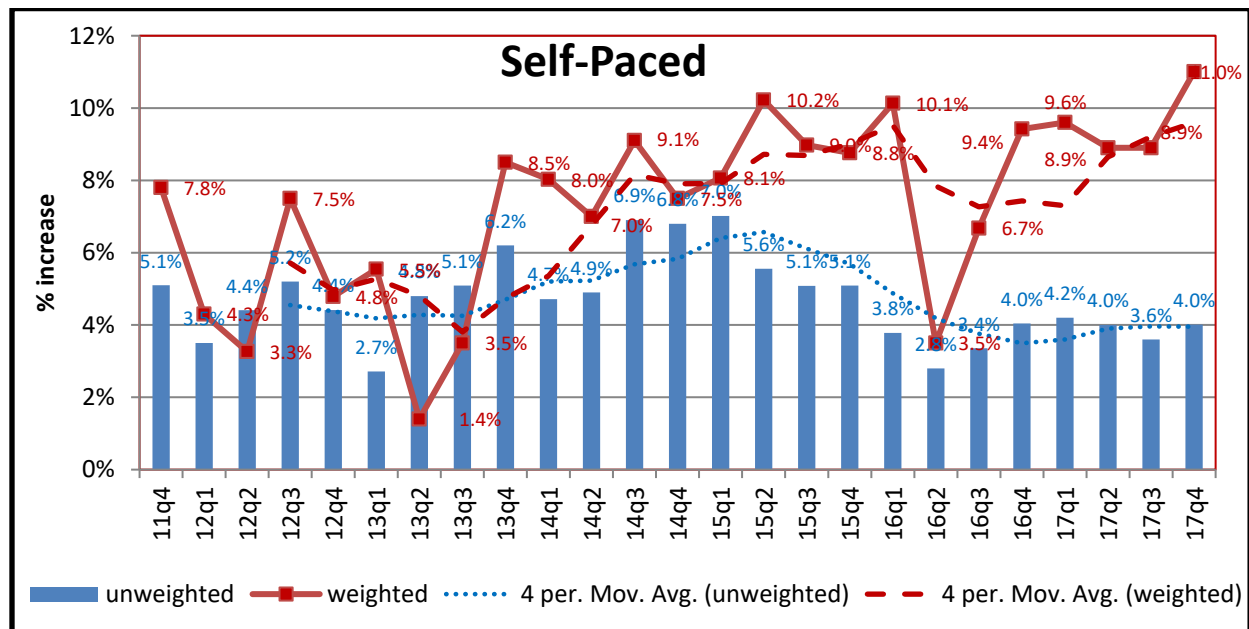


When weighting is considered, the changes are less dramatic, except during 1717. In 17Q4, public **revenue** has decreased 4.4% and private **revenue** decreased 0.4%. The 4-period moving average is negative 3-4% for public but is a 4-5% increase for private.



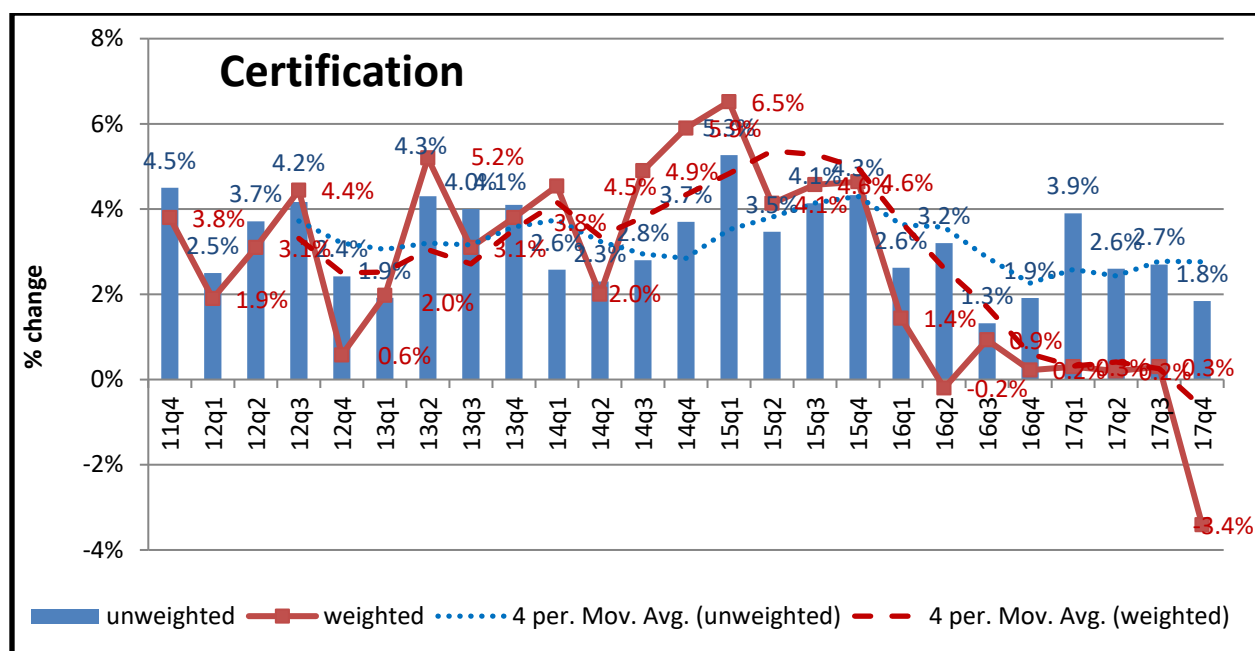
Self-Paced

The unweighted self-paced **revenue** increase in 17Q4 (u=15, f=11, d=1) was 4.0%. However, the weighted self-paced **revenue** increase was 11.0%, up from last quarter. The growth remains higher than virtual classroom. The 4-period moving average shows a 4% increase for unweighted, 9% for weighted.



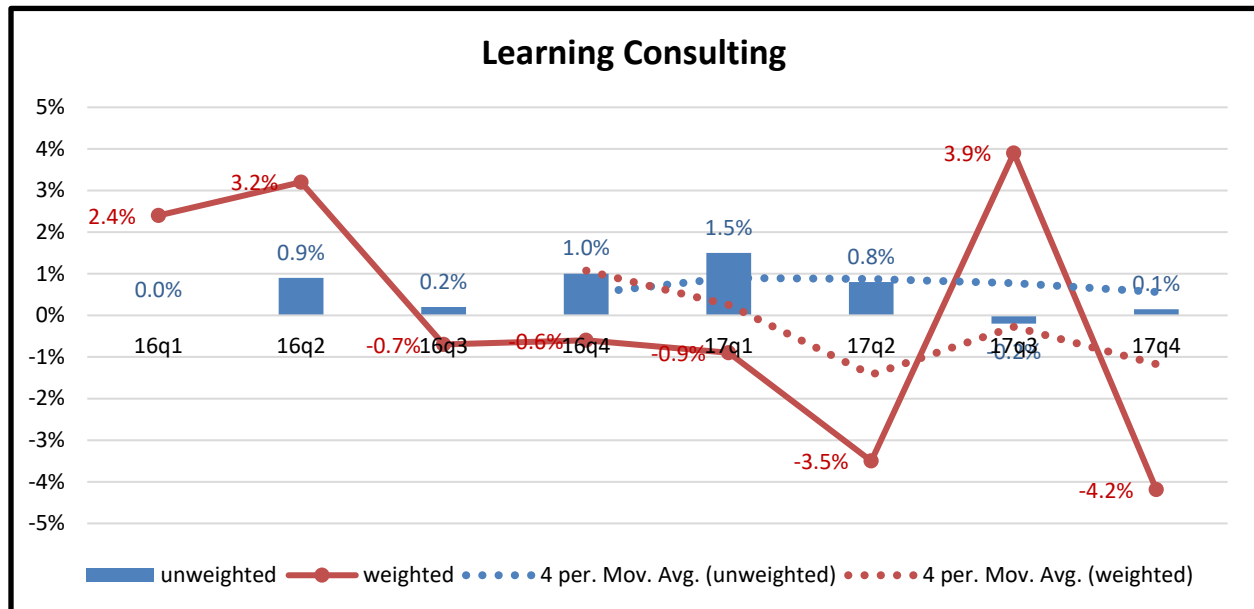
Certification

The unweighted certification **revenue** increase for 17Q4 (u=7, f=17, d=3) was 1.8%, yet the weighted certification **revenue** decreased by 3.4%. The 4-period moving average is showing an increase of 2-3% for unweighted but weighted has dropped to just under flat. 27 out of the 42 companies have certification revenues.



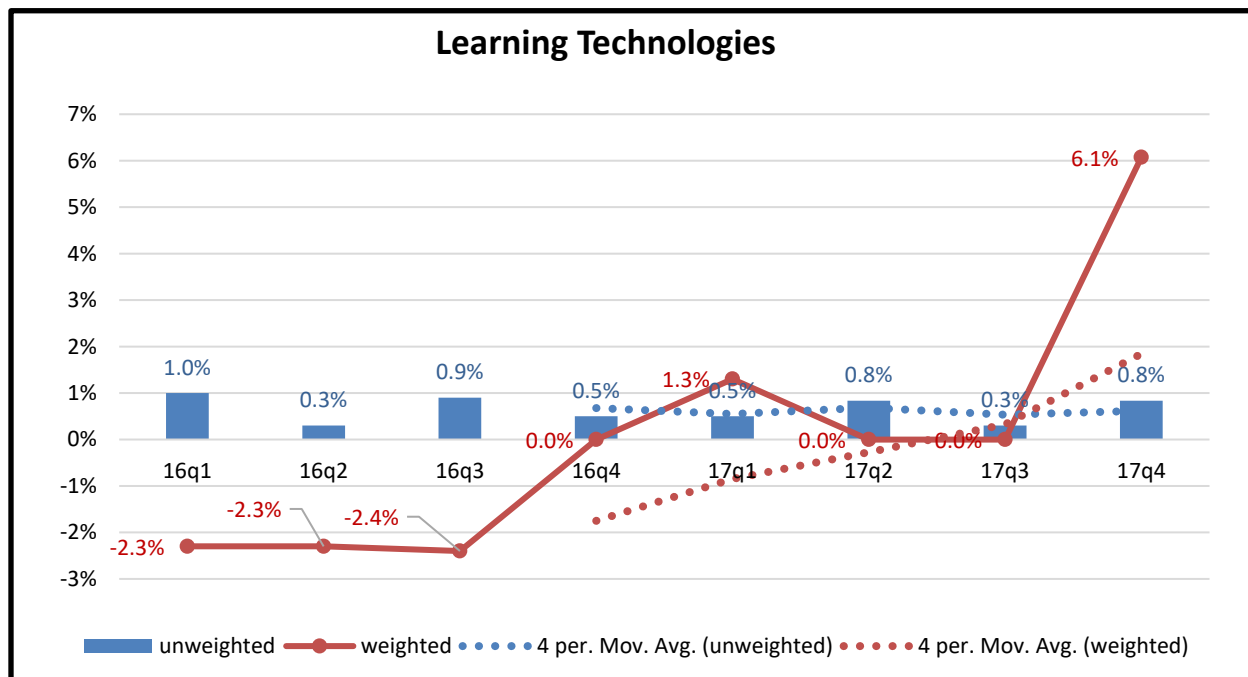
Learning Consulting

We now have two full years reporting this area. In that period, the unweighted scores have largely remained flat. Weighted scores have been volatile and show a moving average of negative 1%. The **revenue** increases for 17q4 (u=8, f=1, d=8) are 0.1% for unweighted but negative 4.2% when weighted. 17 out of the 42 reported consulting revenues.



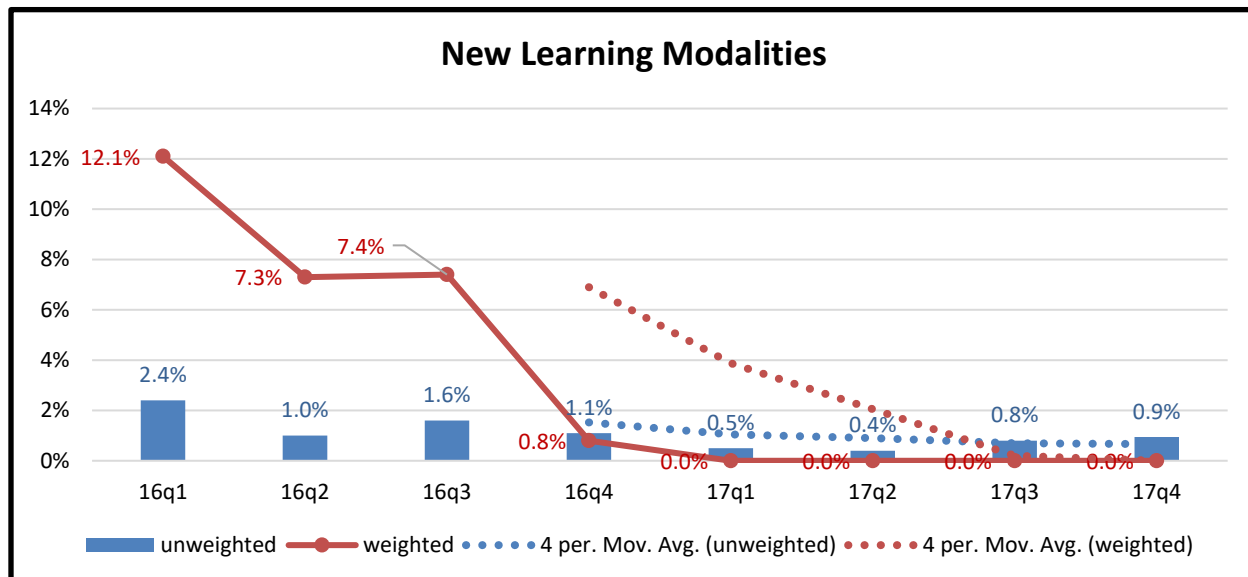
Learning Technologies

We also now have two full years reporting this area. In that period, the unweighted scores have hovered just above flat, but weighted scores now show 2% increase. The **revenue** increases for 17q4 (u=4, f=3, d=0) are 0.8% for unweighted and 6.1% when weighted. Only 7 out of the 42 reported technologies revenues.



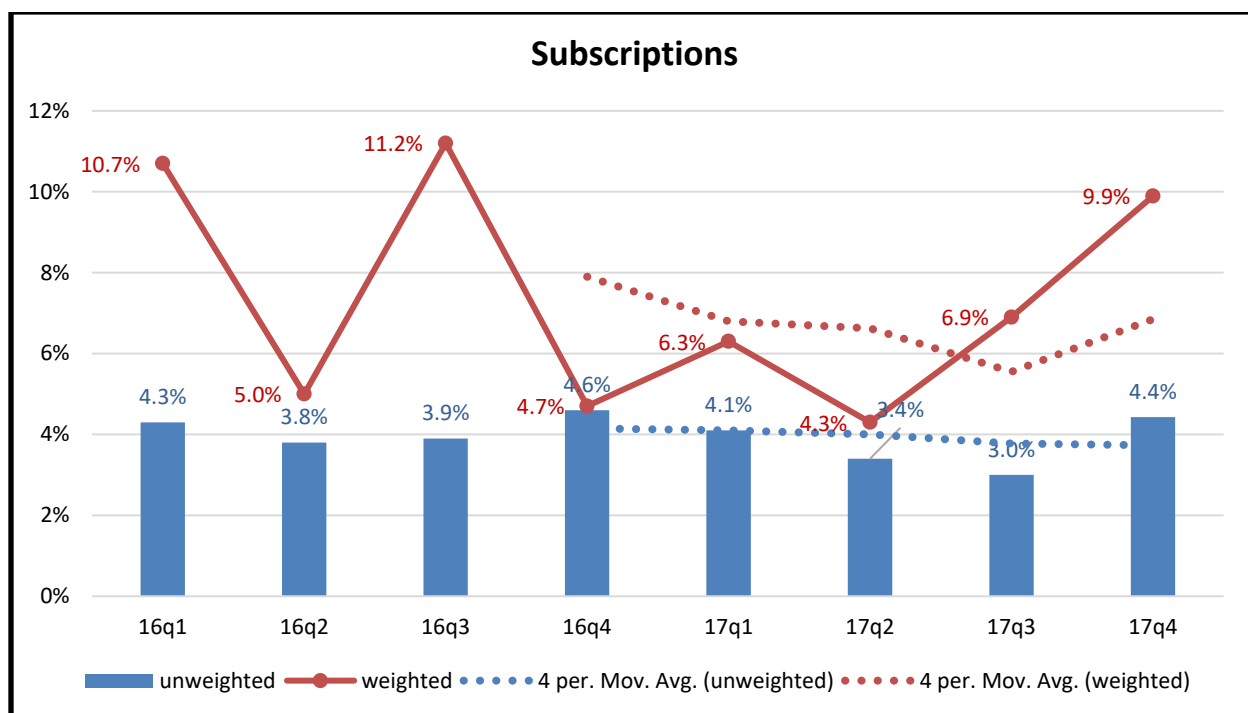
New Learning Modalities

We also have two full years reporting this area. In that period, the unweighted scores are 1%, while the weighted scores now show flat, falling from 7% in 2016. The **revenue** increases for 17q4 (u=4, f=1, d=1) are 1.3% for unweighted and 0.9% when weighted. Only 6 out of the 42 reported new modalities revenues.



Subscriptions

We also have two full years reporting this area. In that period, unweighted scores show a 4% increase and weighted scores 6-7%. The **revenue** increases for 17q4 (u=19, f=2, d=4) are 4.4% for unweighted and 9.9% for weighted. 24 out of the 42 reported using subscriptions.



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

1. Self-paced/eLearning
2. WorkForce Management - Cloud Based
3. eLearning. We released new training and it's been popular...
4. None
5. eLearning subscriptions
6. The need for individual purchase of one-time events
7. Self-paced
8. Our revenue from courses for sale increased some. Towards the end of the year implementation training was up as the last quarter of the year is usually our busies.
9. Cybersecurity
10. eLearning
11. Data Preparation; Master Data Management
12. Private event programmes.
13. New courses have increased the number of students taking public instructor classes
14. User Adoption and Change Management consulting
15. Developer courses
16. Emerging Products
17. Infrastructure automation management; Collaboration
18. Security and customized content
19. Self-study, corporate decision to make self-study courses be free for an extended period of time
20. Database and technology
21. Private training
22. Apache Spark
23. Subscription based on-demand learning, especially multi-year term
24. Advanced classes
25. Learning Consulting
26. OnDemand (self-paced/eLearning)
27. Customized, onsite training.
28. Self-directed online classes
29. With an expanding eLearning library, this modality has improved over the last quarter.
30. We are launching our LMS in a week. We have added new hire training to our responsibilities.
There's no interest in changing our cost center business model.
31. All of our classes. Currently we teach 5 courses, all ILT. I don't have any info on the ATC classes.
32. Open enrollment; Private virtual classes
33. Subscriptions. We converted to a Subscription model. But now that we're charging for training it had the opposite effect on self-paced training volume and certification.
34. Partner Training
35. Classroom training for customers.
36. VLT
37. License content and customization
38. Subscription services

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

1. Technical public schedule
2. Premise-based
3. Public training.
4. None
5. Onsite =(private) classes; Learning consulting
6. Classroom training
7. Course package sales went down slightly in December, which is normal.
8. We are retooling our learning development teams.
9. Network Video Fundamentals
10. Older, legacy products; ILT
11. None
12. Self-paced gated by the LMS
13. Public and private class attendance
14. End user courses
15. Public Classroom Training; Information governance training; Virtual Training
16. Certification
17. More established products
18. Instructor Led Training student days
19. Various ERP topics
20. Public training
21. Core Teradata data warehouse curricula
22. Live Instructor Led
23. Beginner classes/fundamentals
24. Public ILT open enrollment
25. Live Training (on premise, both public and private), certification
26. Certification.
27. One-on-one training and live webinars
28. Public training has decreased significantly over the last quarter and modestly year-over-year.
29. Our trainer got laid off, so we're not offering Agent Tools in an ILT format. We still have no permanent staff, only contractors.
30. None
31. Onsite
32. Certification, because we started charging for the Online training.
33. Public VILT
34. Internal training
35. Public training
36. Public and in classroom
37. Private classroom

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

1. APAC - public training business down. Most resellers now trained. Expectation in APAC public training should be free/included. Not much traction with sales including in quotes. AMERICA'S public business down - partly by design, as we enable more partners to deliver our technical public courses. More public training also "included" in support contracts. eLearning offerings relatively new for us - challenge educating Sales to start quoting it. Need to better educate our Professional Services team to provide blended learning approach, build-in eLearning to proposed training delivery plan.
2. Globalization, including translation and multi-currency/e-commerce solutions; Identifying technology solutions to support modern education offerings
3. Partner fees; Revenue through product attach - and reduced product sales
4. Corporate shift towards focusing on eLearning. That line of business is getting most of the investment now, despite the fact that it doesn't generate any revenues for us.
5. Driving more consumption of training. Continuing to measure the impact of training.
6. Need to overhaul the portfolio to adopt new learning technologies (freemium models)- Go to Market model changed and not yet fully adopted
7. Sales
8. Operational inefficiencies in learning management and registration
9. 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. Would like to create a freemium to premium model. Second: leadership is pushing to make all training "free" as part of an overall price increase.
10. We are retooling our learning development teams. This is resulting in slower times to update content.
11. Internal Change; Process Development
12. 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.
13. Preparing the content team to develop content quickly for cloud releases.
14. Engaging the product sales team in selling training credits. Incenting ATPs to sell training.
15. Getting students to take our multi-day public classes. Keeping up with content development needs.
16. Slower than expected product sales; Customer willing to spend less money on training
17. Keeping up with growth while maintaining excellence in delivery.; Keeping up with product changes.
18. Rapid elearning development; maintaining version currency
19. Moving back to a revenue generating model selling training again; Increase training offerings in local languages
20. Greater percentage of our revenue is from credits in programs we don't manage. Credit values are lower than ours, impacting our P&L.
21. Keeping up with all product development; How to increase training demand
22. Acceptance and marketing of new online mentoring program; Broadening digital strategy for people to find our and book courses
23. Switch from on-premise to cloud business model
24. Free items or discounts; In Europe, we are competing on price. Customers do not want to pay the true value of Education.
25. Still having to do more with same budget

26. Reduction in Public ILT demand, especially in N America
27. Delivery (resources to teach our classes). Engagement of a specific subset of our community to come to classes.
28. Resources/budget; organizational restructuring
29. Agile development of on-demand content; Attach rates of training to software for new customers
30. Enterprise license sales. Resources and staffing.
31. Development/engineering resources for furthering technology used for learning
32. 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 and technology are significantly impacted.
33. Boss was fired. New boss has limited knowledge of training and has changed our priorities again.
34. Meeting demand. We currently have a 5-7-week lead time to deliver classes to our customers.
35. Keeping up with product changes
36. Dramatic growth in our partner business, leading to training challenges there. We can't get to everybody that needs training. Converting from a start-up with a disruption-focused training business, to a more mature business with a P&L responsibility.
37. 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.
38. Getting qualified Instructional Designers. Getting Marketing around the new program offerings
39. Attach rate; delays in the Sales process
40. Moving traditional services revenue over to the subscription line caused deferral of delivered revenue recognition. Services that previously had been recognized upon delivery were now ratable over a term. Finding qualified senior training delivery professionals.

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

1. Nothing seems easy. Not strong enough technology to help make it easier. Also, a lot more players, hard to find the right vendor for a given problem.
2. 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.
3. 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. This complements subscriptions sold at the account level.
4. More demand for micro-learning
5. 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. No changes to my previous answers.
6. Move to Blended and mobile
7. 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.
8. Regulatory compliance in Europe (GDPR) is a driver of demand right now.
9. 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.
10. Customers are moving away from Brick & Mortar classroom training.
11. 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
12. Growing Customer expectation for fixed price contracts or subscriptions over a 3-year term
13. Clear movement (at least in our customer group) toward more practical education and away from grounding customers in the philosophy and elements. Put another way, they want to be shown exactly how to tie a knot, cast the bait, where to cast the bait, and not just be taught the concepts behind fishing.
14. 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. OnDemand growing in popularity - creating reasonable offerings with tight budget is challenging, but need to find means to create content more efficiently
15. Seems to be no interest in Subscription Program.
16. We have seen a slow but growing demand for virtual classes. I believe it's to save on attendee travel expenses.
17. Our certification business seems to have stabilized after a period of decline.
18. We now have our subscription training recognised as Recurring Revenue - equivalence to license revenue. This means license sales reps get comp and quota relief on selling training subscriptions. Big win!
19. We are a SaaS-based company, we are seeing more solutions in the cloud. This does bring a different opportunity to the training organization.