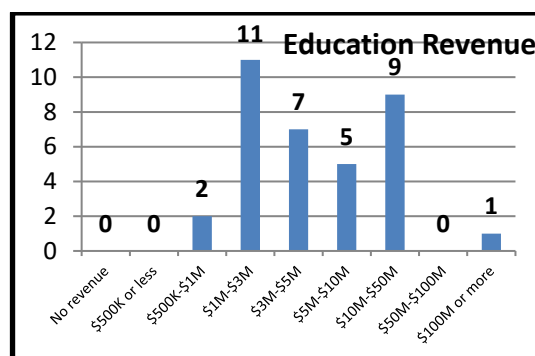
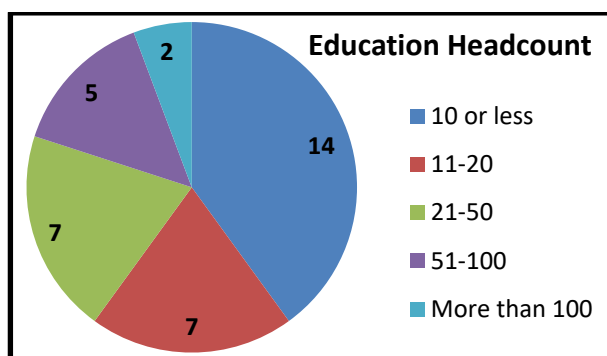
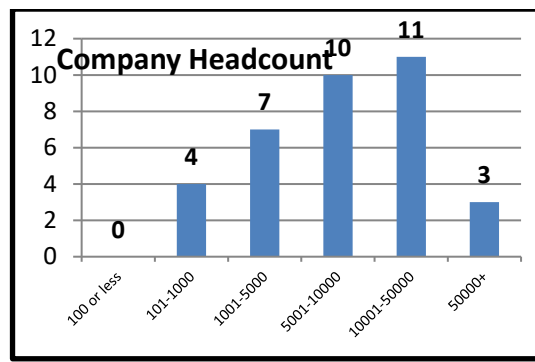
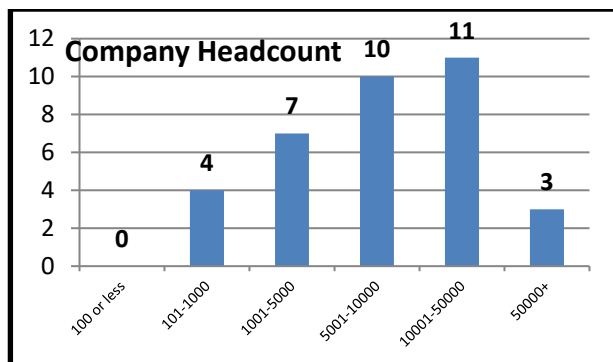
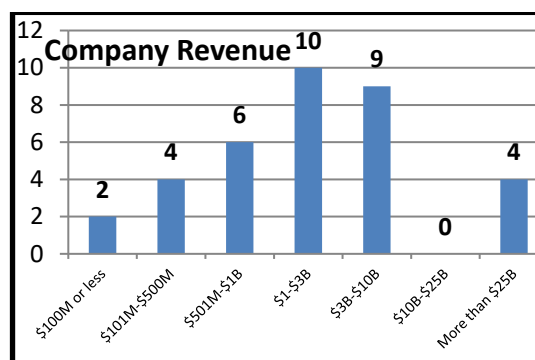
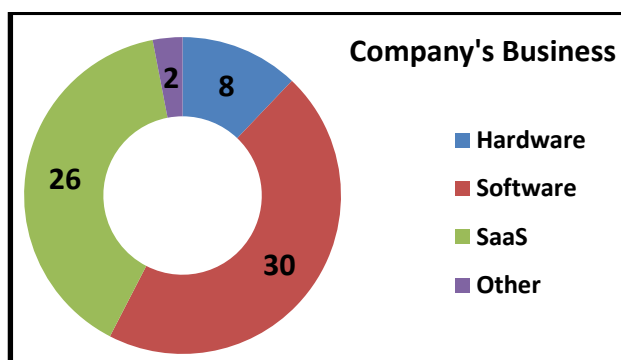


CEdMA Europe Market Barometer 4th Quarter 2017

Introduction

This report is compiled by CEdMA Europe for its members from input for their EMEA businesses. It is based around a series of absolute growth or decline percentages in the range $\pm 12.5\%$. Revenue refers to training services delivered in the quarter and not future bookings. Note that in this report, u/f/d is the number of members reporting up/flat/down, respectively. This report for 17q4 actuals is based on input from 35 companies.



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 revenue value, so larger companies have a bigger impact.

Growth observations are weighted and based on trendlines of 4-period moving averages during 2017.

Total Revenue is defined as all recognized revenue. Having been down to negative 2% in 2014, it recovered to positive 2% increase in 2016, and is now positive 3% over 2017.

Operating Profit is revenue minus all fixed and variable costs, excluding allocations, divided by revenue. It has recovered from a low of negative 2% during 2013 to a 2% increase in 2016 and is now holding at positive 3% for 2017.

Live Classroom (ILT) is all revenue when the instructor is in the same physical location. It fell to negative 2% during 2014, recovered to flat in 2015, but is now showing a 1% decrease in 2017.

Virtual Classroom (VILT) is all revenue for instructor-led training via the web, with or without virtual labs. It dropped from 6% during 2013 to 1% in 2014, rose to 3-4% in 2016 but is now back to 2% for 2017.

Public (scheduled) classes is revenue for ILT and VILT and now recovered to negative 2% over 2017, having been negative 3-4% in 2016/17.

Private (one-customer) classes is revenue for ILT and VILT, and showing an increase of 2%, down from 4% in 2016.

Self-paced is all revenue generated by training students without instructors, such as eLearning, video, and can be paid per use or by subscription. It's now showing an increase of 6-7% having been as low as negative 4% during 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/VILT/self-paced. The trendline is now flat for 2017, down from a high of 4% in 2014-15.

Learning Consulting is all revenue generated by non-training education business like learning needs analysis, customization of material assessments, and mentoring/coaching after training. While it was flat for 2016, it has been negative 3% for 2017.

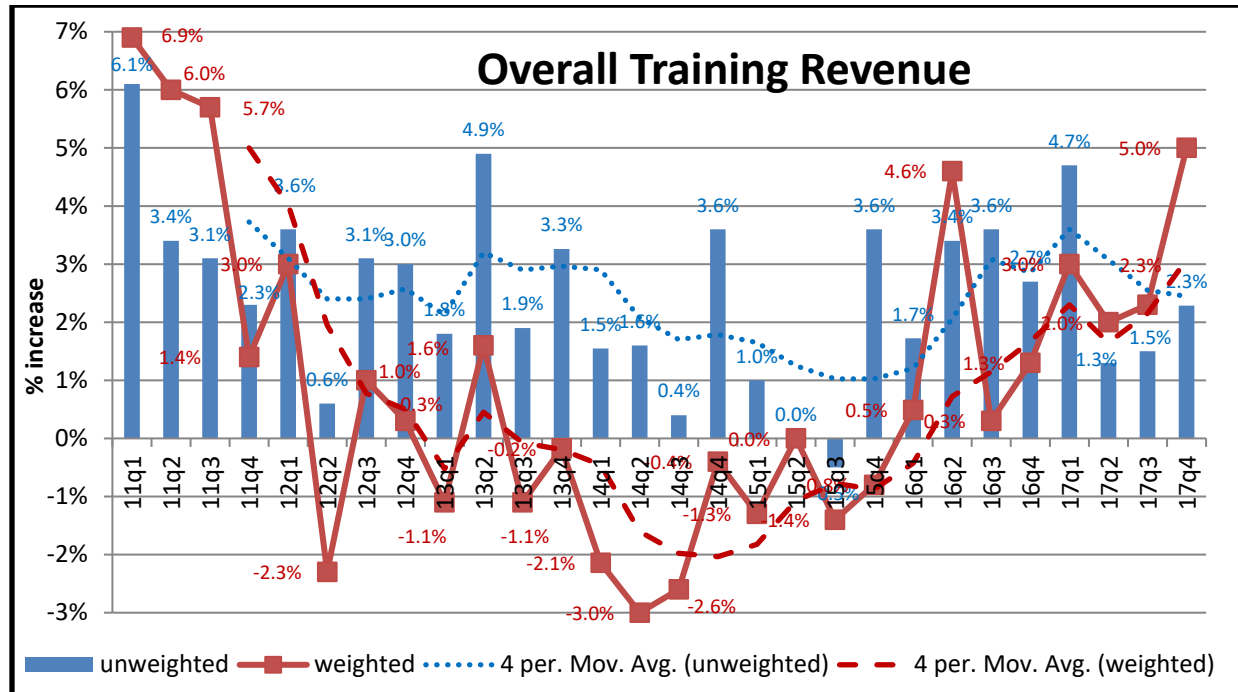
Learning Technologies is all revenue generated by learning tools, infrastructure, courseware and directly related training and learning consulting for these technologies. The "kick" in 17q4 has maintained the 2% growth in 2017 from 2016.

New Learning Modalities is all revenue for social learning, gamification, microlearning, mobile. The trend of 8% increase across 2016 has not been maintained and has now fallen to 3%.

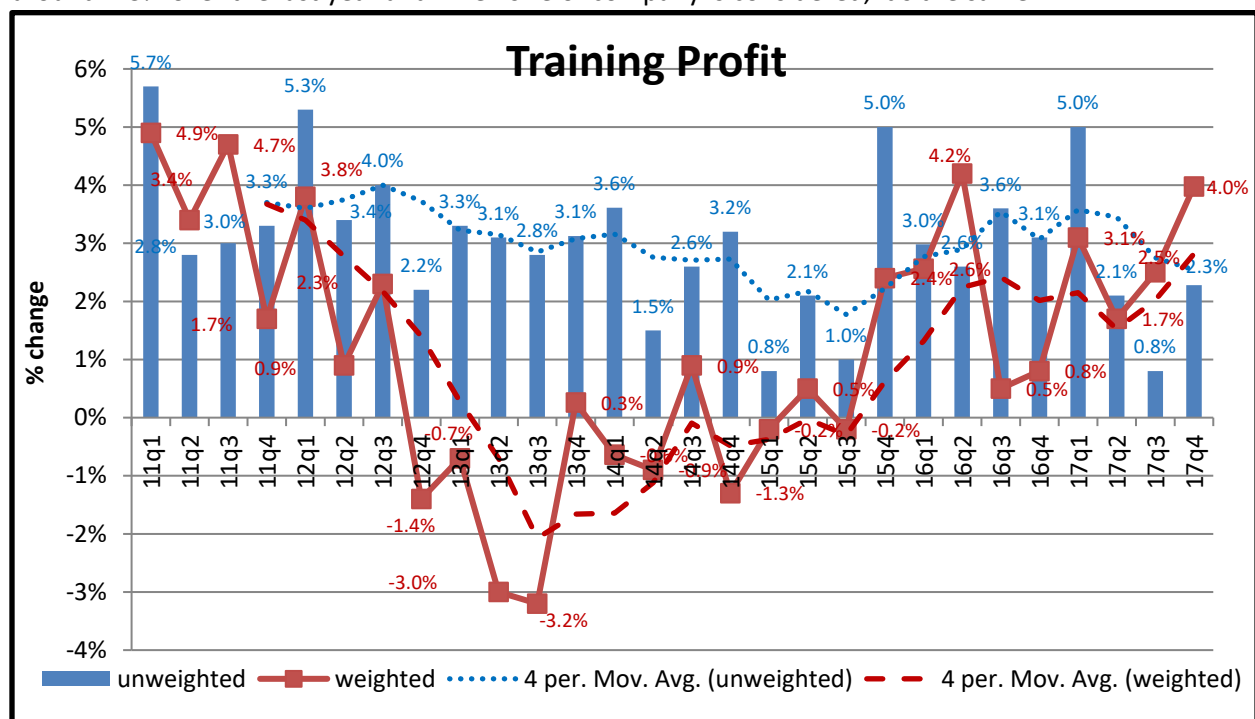
Subscriptions include all revenue from any of the above modalities included in subscriptions. With many companies starting subscriptions in 2015/16, the increase was 8% over 2016, but that has now dropped to 3-4%

Training Revenue and Profit

The unweighted total training revenue increase was a 2.3% in 17q4 (u=19, f=5, d=11). When considering the weighted numbers, it was 5.0%. The unweighted trendline shows an ongoing increase of 2-3%, but when size of company is considered, it's 3%.

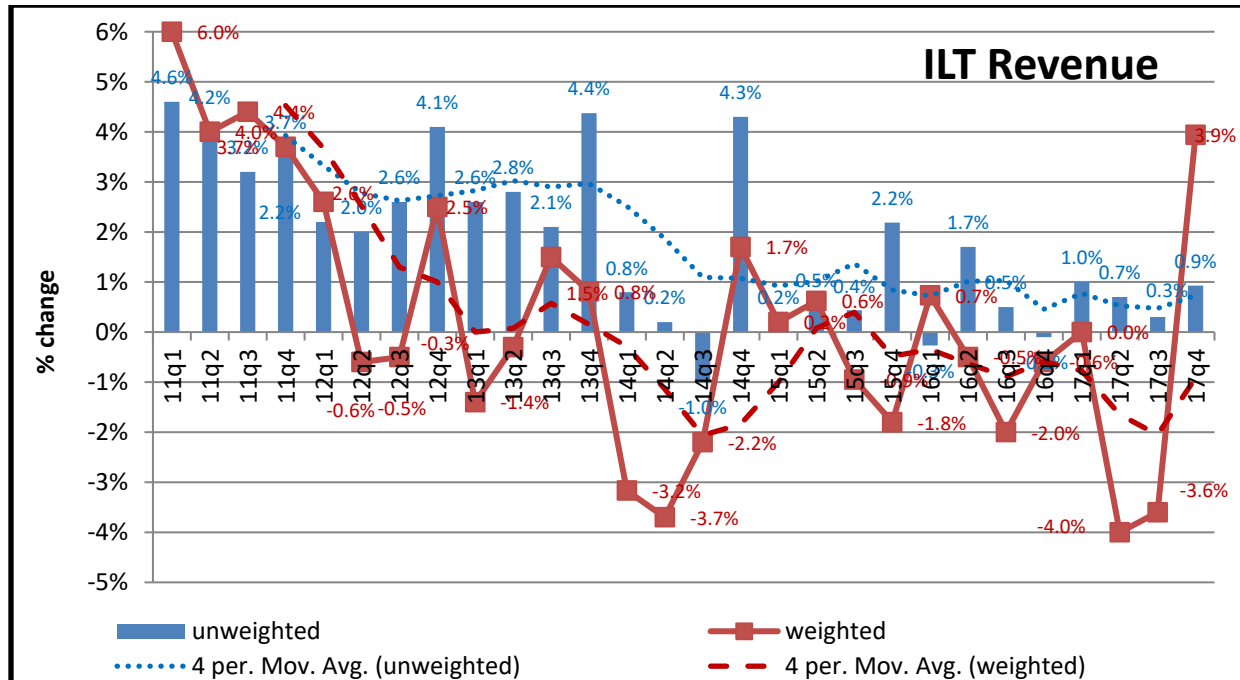


The unweighted total training profit grew 2.3% in 17q4 (u=16, f=11, d=7). And, with the weighted numbers, there was an increase of 4.0%. The unweighted trendline shows an ongoing profit increase of around 2-3% over the last year and when size of company is considered, it's the same



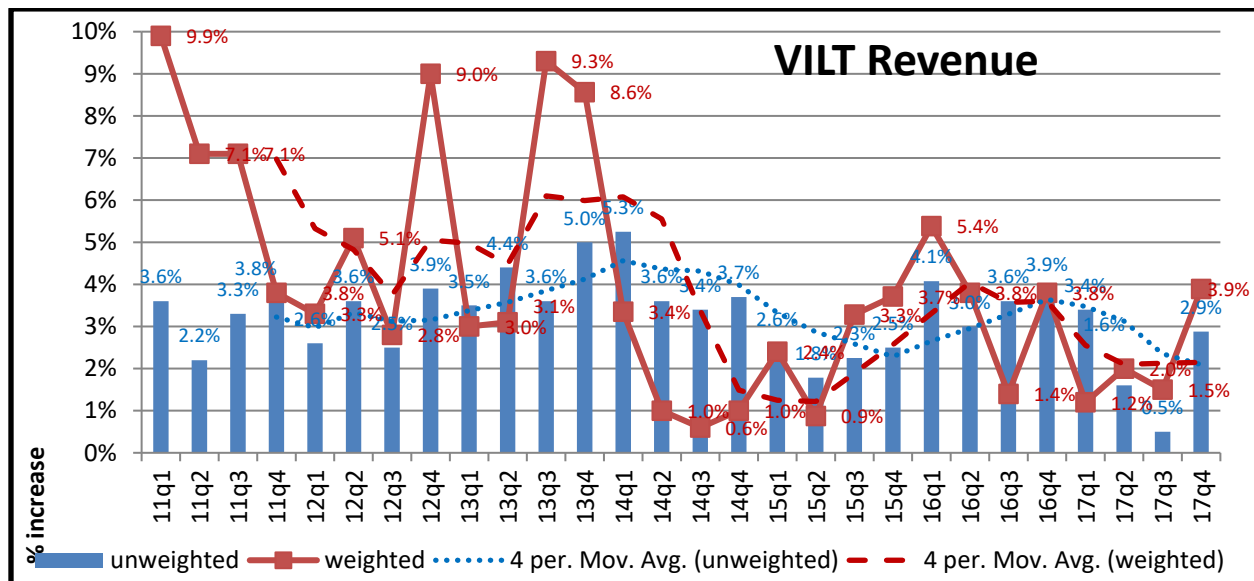
Live Instructor-led Training

This chart below suggests that ILT **revenue** for the larger companies has been the main cause of lower overall training revenue increases. The unweighted 17q4 increase was 0.9% (u=15, f=12, d=8) but the weighted number jumped to 3.9%. The unweighted trendline shows ongoing ILT revenue as flat, and when size of ILT revenue is considered, it is negative 1%.

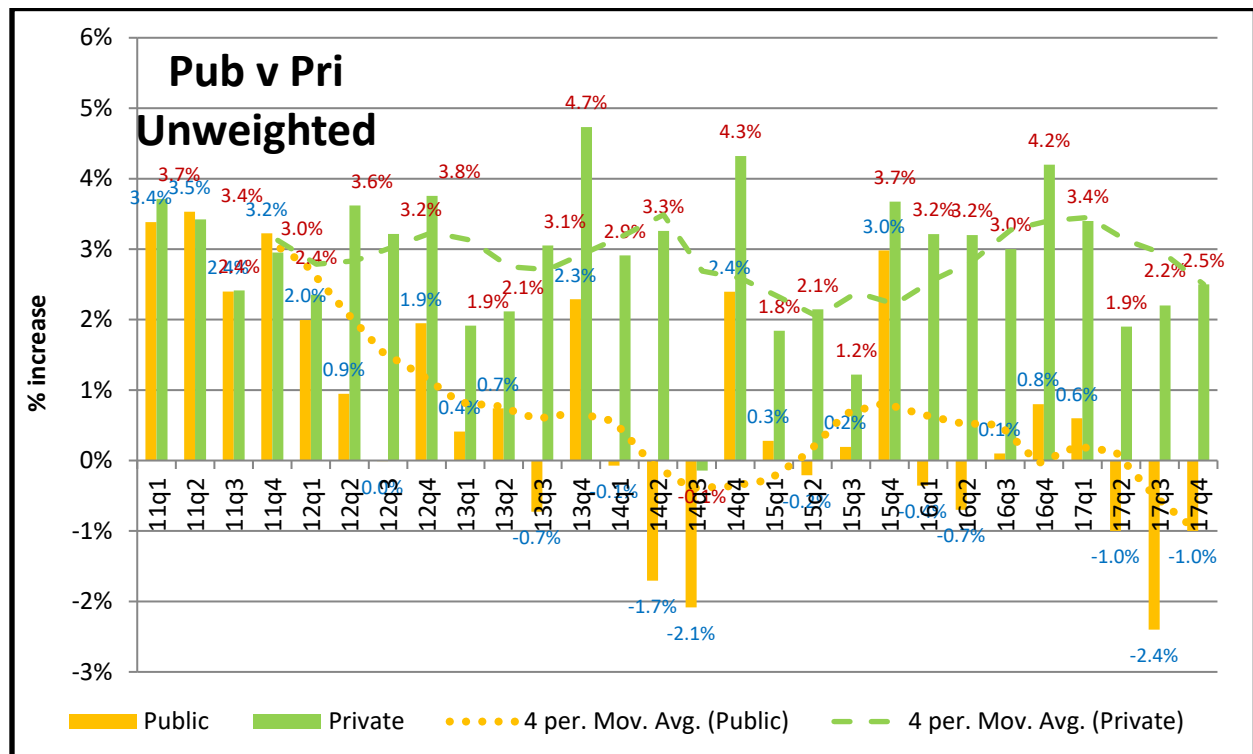


Virtual Instructor-led Training

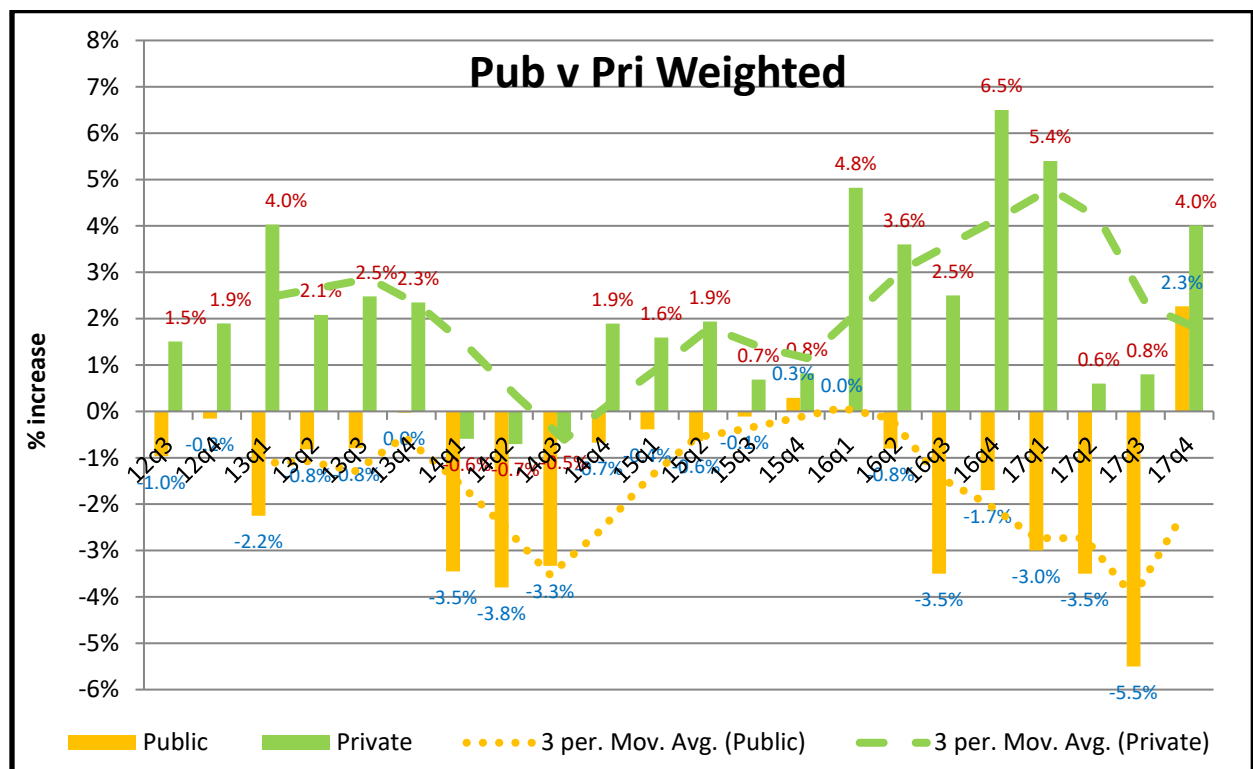
On the other hand, the VILT increase fell badly in 2014 but recovered. The unweighted 17q4 **revenue** increase is 2.9% (u=18, f=7, d=4) and the weighted increase is 3.9%. The unweighted trendline shows an ongoing VILT increase of 2% but when size of VILT revenue is considered, it was 3-4% in 2016 but has fallen now to 2%, having been from 1% in 2014. Note that 6 of the 35 don't use VILT.



We are now asking you to forecast both public (u=10, f=7, d=18) and private (u=18, f=6, d=10) classes and have enough history to show that private classes show a consistent steady **revenue** increase of around 2-3%. Public classes have dipped to negative 1%. This shows unweighted values.

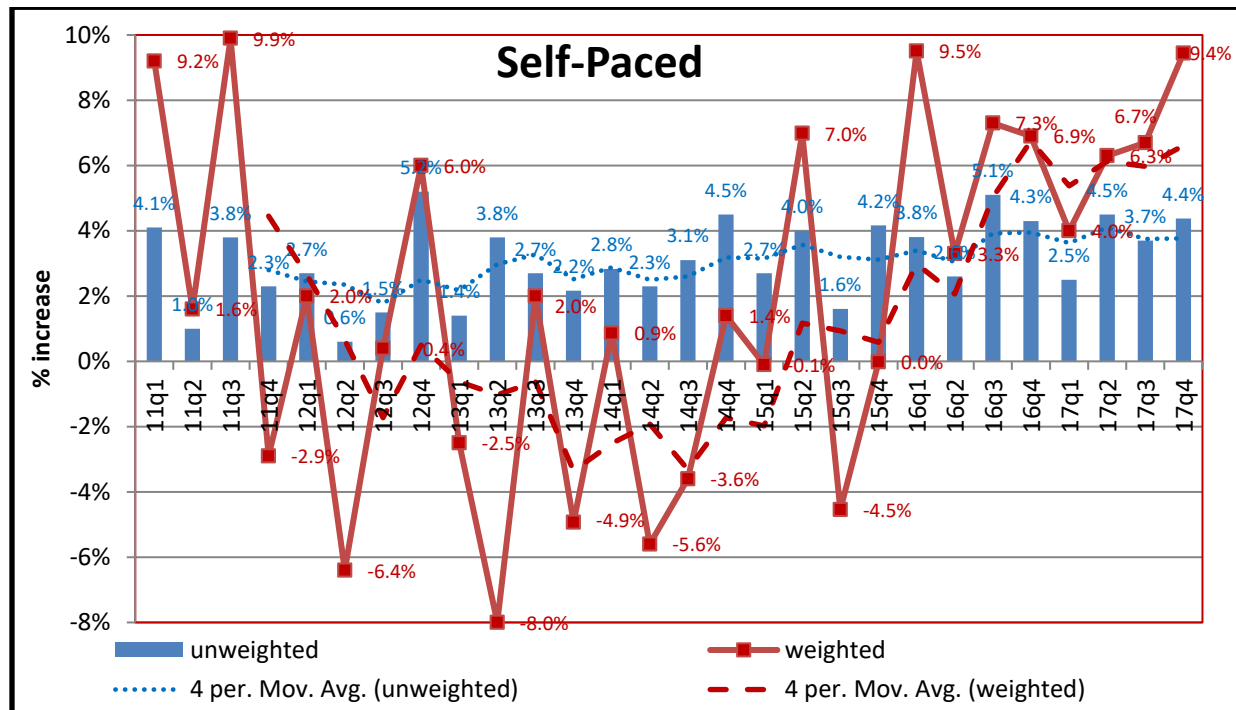


When weighted values are used, the **revenue** increases for public are negative 2-3% with private dropping to a 2% increase.



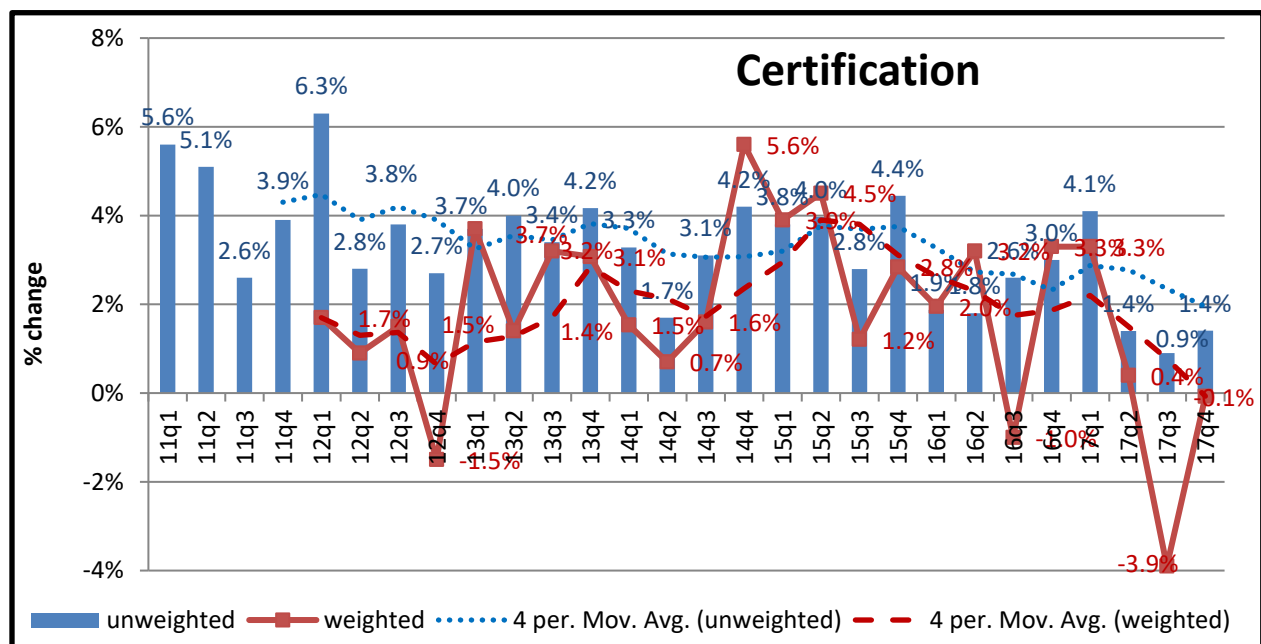
Self-Paced

The results for 17q4 (u=19, f=6, d=1) were 4.4% increase unweighted and 9.4% increase weighted. This shows how larger companies can have a significant effect on these averages. The 4-period moving average shows a 4% increase for unweighted and 6% for weighted. Only 26 reported revenue.



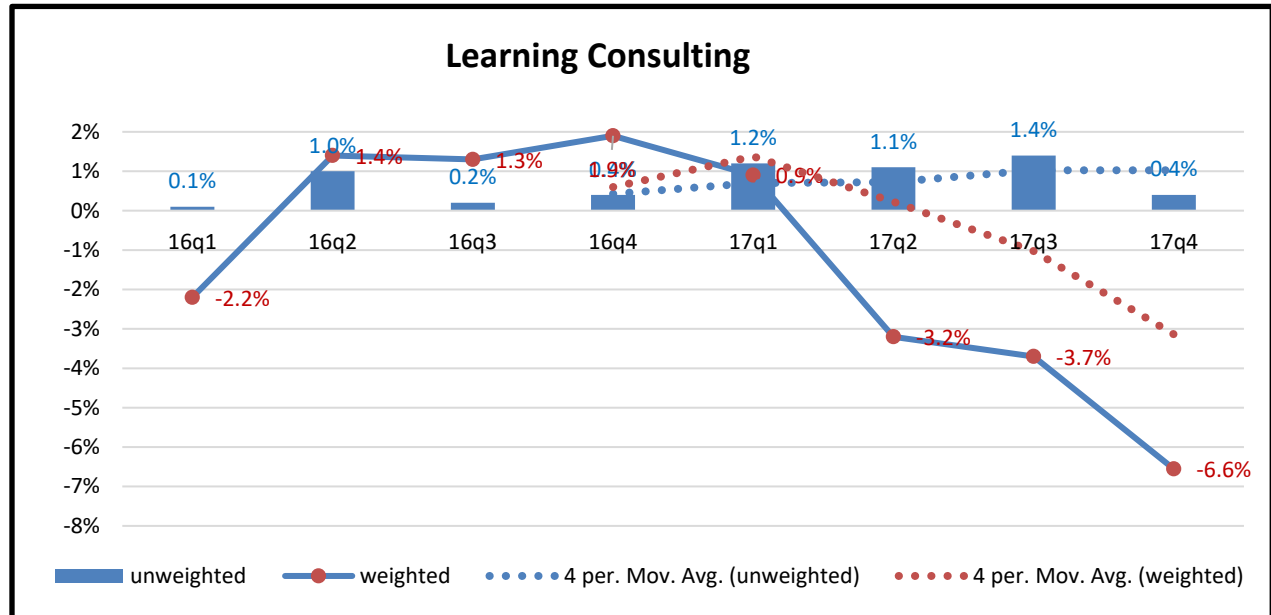
Certification

Overall, certification has averaged an increase of around 3% year-on-year when unweighted. In that four-year period, the weighted scores grew from a 1% to 4%, too, showing a resurgence in the larger companies, but has now fallen back to flat. The **revenue** increases for 17q4 (u=10, f=9, d=8) are 1.4% for unweighted but negative 0.1% when weighted. 27 out of the 35 reported certification revenues.



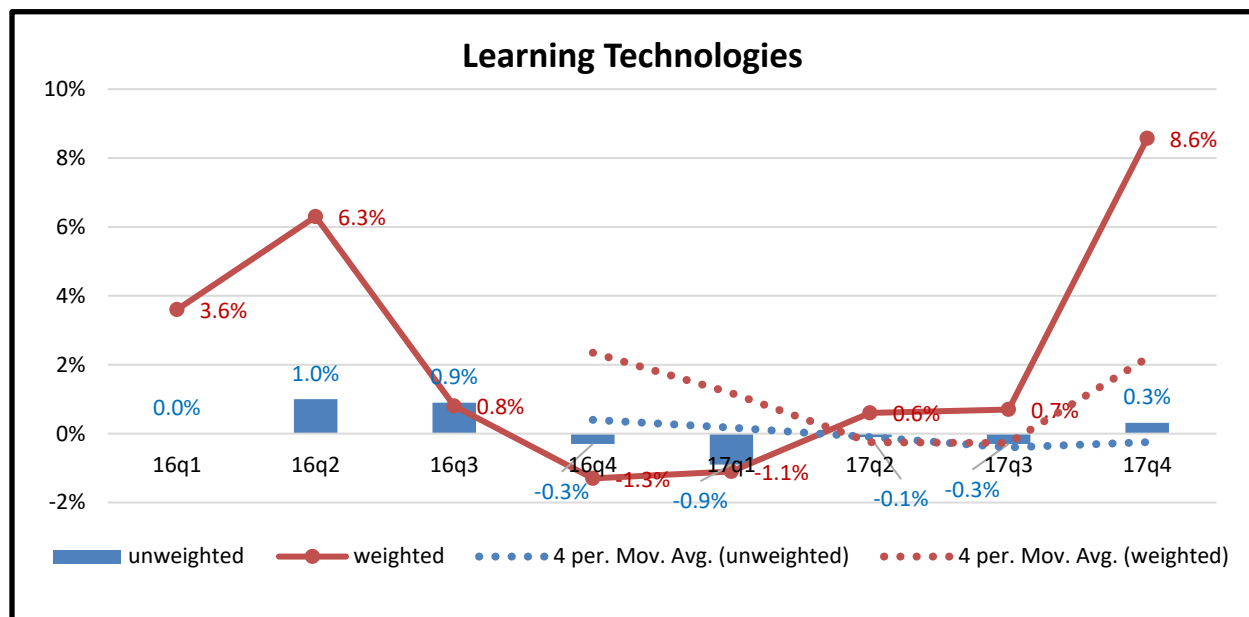
Learning Consulting

We now have two full years reporting this area. In that period, the unweighted scores have largely remained flat. However, weighted scores have dropped dramatically to negative 3%. The **revenue** increases for 17q4 (u=8, f=1, d=8) are 0.4% for unweighted but negative 6.6% when weighted. 17 out of the 35 reported consulting revenues.



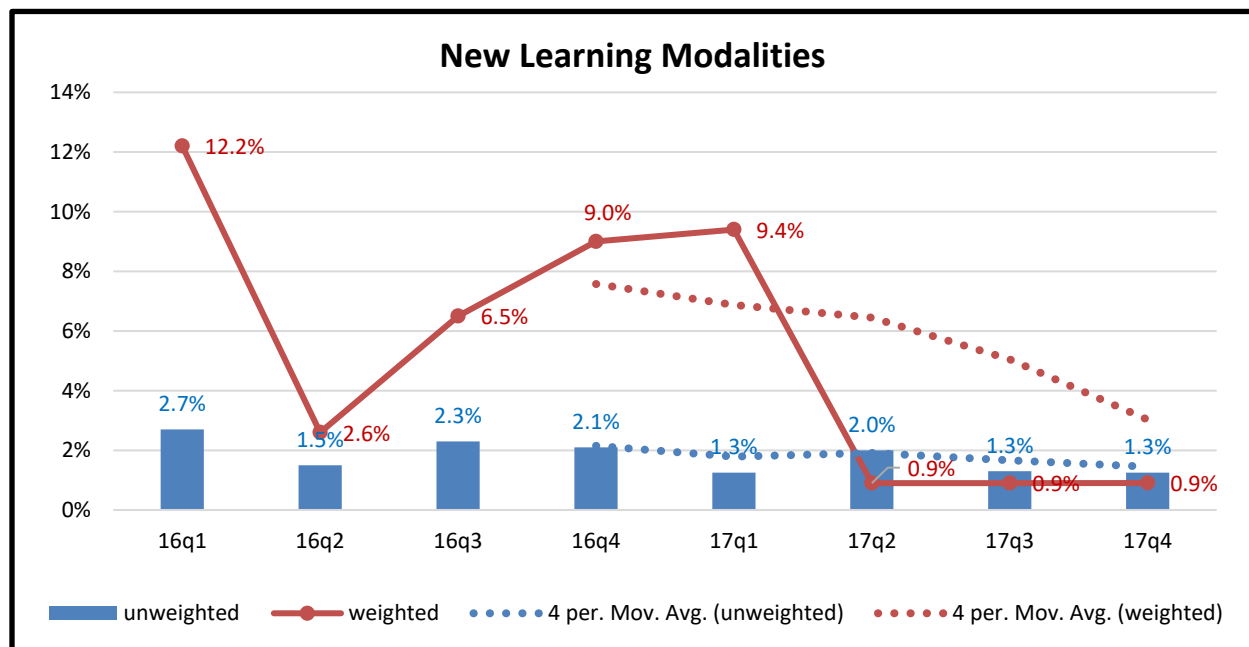
Learning Technologies

We also now have two full years reporting this area. In that period, the unweighted scores have hovered around flat, but weighted scores now show a 2% increase. The **revenue** increases for 17q4 (u=4, f=0, d=4) are 0.3% for unweighted and 8.6% when weighted. Only 8 out of the 35 reported technologies revenues.



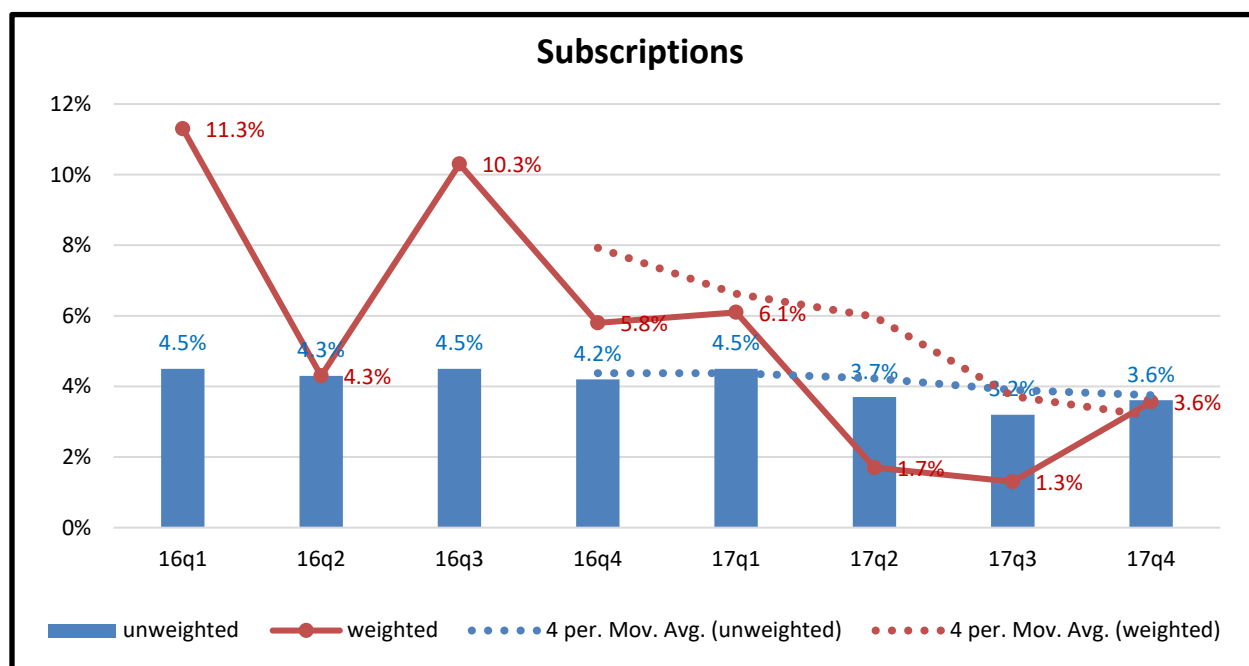
New Learning Modalities

We also have two full years reporting this area. In that period, the unweighted scores are 1-2%, while the weighted scores show 3%, but falling from 7%. The **revenue** increases for 17q4 (u=12, f=1, d=1) are 1.3% for unweighted and 0.9% when weighted. Only 14 out of the 35 reported new modalities revenues.



Subscriptions

We also have two full years reporting this area. In that period, both unweighted scores and weighted scores show 4% increases. The **revenue** increases for 17q4 (u=19, f=2, d=4) are 3.6% for unweighted and the same when weighted. 25 out of the 35 reported using subscriptions.



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

1. ILT
2. System Administration
3. elearning and certification
4. Automation
5. Onsite, tailored deliveries
6. SDDC Hyper converged infrastructure
7. Training Subscription and Onsites Classes
8. Networking, Storage
9. Robotics
10. Introductory training for our product.
11. None. Down across the Board.
12. Subscription and Education Consulting
13. WorkForce Management - Cloud based
14. Public Virtual Training
15. eLearning subscriptions growing in Q1 FY18 again. We just started subscription model in Q3FY17 and see a growth in Q1 FY18
16. Still Apache Spark
17. Custom courses
18. Workforce Transformation
19. Virtual training delivery
20. VMware
21. Database and technology
22. Citrix Certifications saw big growth in Q4 2017; Citrix on Microsoft Azure is also a big growth area for training
23. None...static....very quiet!
24. Custom Learning Projects
25. Certification; On-demand learning subscriptions
26. Private courses still are out performing public classes; we have a relatively new software product which is finally getting traction
27. Subscriptions on digital courses
28. Virtual delivery
29. Programming
30. Partner Training
31. Endpoint Protection; Data Loss Prevention
32. Async training and private ILT
33. Some self-paced activities

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

1. There were no decreases
2. None
3. Security
4. Standard classroom across authorised partners. As channel becomes more established, they are impacting uptake for formal vendor training.
5. Open enrollment; High end storage
6. Platforms
7. Certification
8. Private Training and Learning Consulting. This was due to a protracted delay on 2 very significant contracts.
9. Public ILT
10. Premise-based
11. Public Classroom Training
12. In-Center public classes; Onsite classes; Learning Programs started to ramp up quickly due to more large roll out projects.
13. None to report
14. Public schedule
15. Public Onsite
16. Public classroom trainings
17. Storage
18. Various ERP topics
19. Courses relating to older technologies such as Xen Server
20. Private on-site events have significantly dropped
21. Public
22. Live Instructor Led Training
23. Public classes (in class)
24. Public
25. Old technology courses
26. Live ILT
27. Endpoint Management
28. Public classes
29. Public training (online) and certifications - partner training drove this.

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

1. Hiring; And hiring again!
2. Instructor ramp; EMEA tax policy
3. None: stable to increasing business
4. Partner performance remains stagnant; Large customers delayed new purchases
5. Subscriptions launch (planned for April) - what services go in, pricing, renewals, attach, free trial period etc. Competition from our own license resellers (grey market knowledge transfers)
6. Integration
7. Get services Operation to work pro-active; Get the right level of support from our Outsourcer
8. Motivating our partners.
9. Time taken to design and implement new self-study courses; Supporting the growing demand for custom/tailored training curriculum
10. Keeping up with product feature expansion; Preparing to move to learning subscriptions.
11. Engaging the product sales team in selling training credits; Incenting ATPs to sell training.
12. Some challenges around shifting from OnPrem to SaaS and GDPR/Privacy disclaimers.
13. UK challenges, deferral of buying decisions
14. Partner fees; Revenue through product attach - and reduced product sales
15. Selling training into accounts that already have "free" education entitlements. Selling Virtual On Demand Training
16. Due to many Learning Programs, we have a challenge to staff with the high-skilled resources/Learning Architects; Low price competition in territory markets (France and Germany) continues to be a threat
17. Convincing customers to spend money on training at point of product sale rather than waiting until the project is underway
18. Shifting to a 5-day format. A growing SMB market
19. Very low software sales in 2017 will hinder education opportunities
20. Decreasing net new license business; less customer budgets
21. Attach and declining certification training
22. Continuous lack of net new sales in UK although signs are good for Q2
23. Move from on-premise to cloud business model
24. Free of charge training given away by Citrix; Getting mindshare with the training partners that we use to sell our offerings.
25. Internal re-org and alignment with wider OU Cloud University business
26. Hiring People
27. Reduction in Pipeline and Backlog due to lower net new Bookings and higher conversion of existing Bookings into Revenue
28. Trying to get additional headcount; Time for trainers to keep their skills current work on new materials
29. Getting the acceptance of customers of virtual classes instead of in-class- Finding contractors to grow delivery scalability
30. License sale attach rate
31. Unpredictability of classroom-based training; Low UK seats
32. Changes to the compensation model for license sales that no longer comps Sales on training.
33. Lack of approved contract Instructors with language skills other than English; No-shows in classes
34. Continued lack of focus on public training.

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

1. Q4 saw growth in our Sales Achievement and in Revenue, Sales achievement was up by an amazing 29% y/y
2. The shift from revenue to value add as the primary KPI. Be great if CEEdMA were able to somehow help us to qualify 'training value' as an independent association. For example, how much repeat business vendors see from trained/certified customers.
3. Our Learning subscription continues to be on high demand
4. Reduction of investment by IT training partners; the competition is fierce between them
5. Cloud, cloud, cloud. If you aren't there you need to hurry there.
6. Revenue is no longer a driver for me - student days is the measure I use now.
7. Increased use of subscription and/or OnDemand/Self-Paced - leading to opportunity to provide online mentoring sessions.
8. Released Virtual On Demand Training (Live Labs, with recorded lessons)
9. More customers are looking to deliver their training themselves through a Train the Trainer program. IP protection is a concern. Customers in EMEA accepted to use Digital Guides the default delivery mode. Customers requesting more virtual offerings or blended approaches. Digitilization and gamification becomes a main part of new learning approaches
10. Modular/pay as you go model becoming more prevalent.
11. Still very competitive
12. Q4 2017 saw a 19% growth when compared to 2016, this was for EMEA and also reflected in North America
13. Flat as per forecast on revenue and margin for EMEA
14. Some areas are moving to VILT, with more demand from EMEA than previously
15. Customers seem to be more cautious with end of year budget spend.