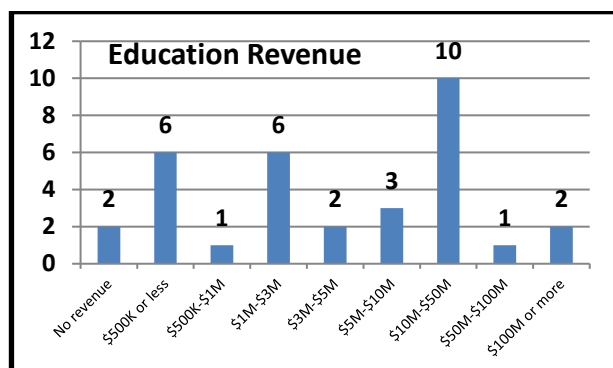
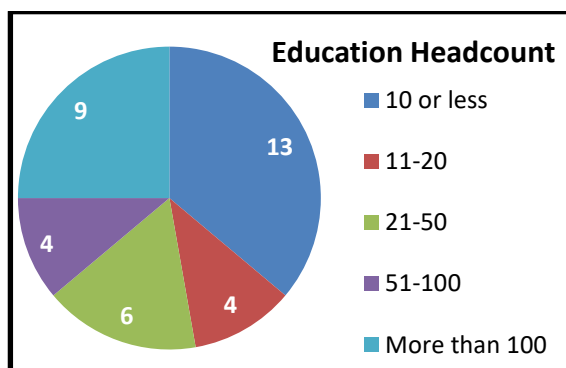
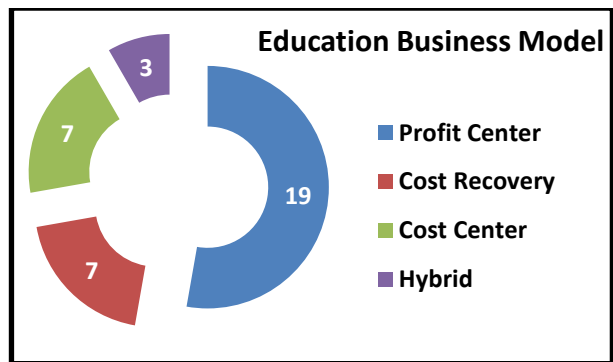
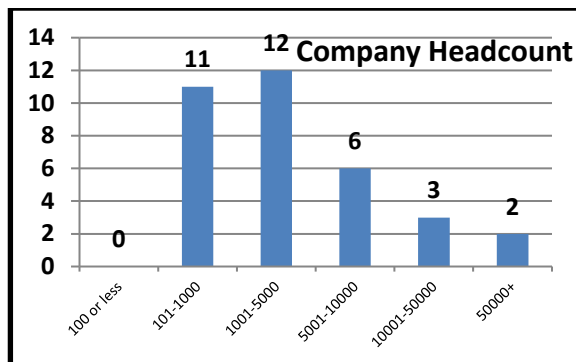
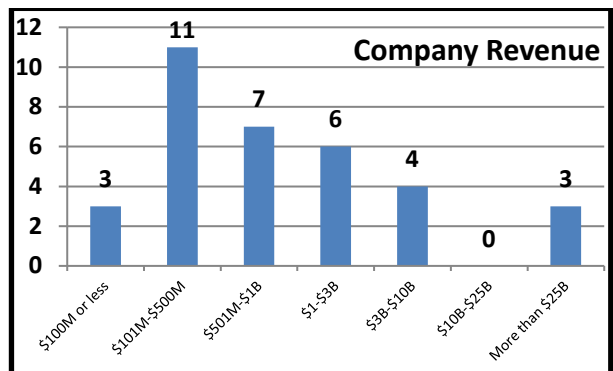
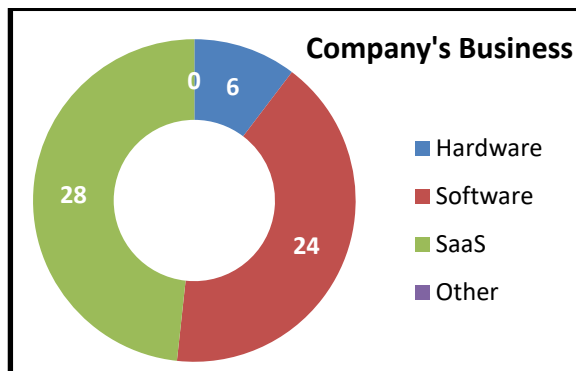




CEdMA Training Market Barometer 3rd Quarter 2018 Actual

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 31 responses for global and 5 for North America so the combined 36 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. The trend was 4-5% in 2016, dropped to 2-3% in 2017 and is now back to 4-5% over the last 12 months.

Operating profit is revenue minus all fixed and variable costs, excluding allocations, divided by revenue. The growth trend is 3-4% year-on-year, down from 4% in 2016, but up from 2% in 2017.

Live Classroom (ILT) is all revenue when the instructor is in the same physical location. Growth was flat in 2013-14, 2% in 2015-17 but has now dipped to -1% over the last 12 months.

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 back to flat.

Public (scheduled) classes is revenue for ILT and VILT and the trend has dropped to negative 3% , 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 a trend of flat for the last 12 months, having been 3% 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 an 8% increase currently, having grown steadily from a 5% increase in 2013. Note that 24 reported revenue for self-paced.

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 kept to flat, having dipped to flat in 2016-17, falling from 5% in 2015. 21 reported revenue.

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 4%. (But only 12 members reported revenue.)

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 and positive 2% in 2017, the trend is now negative 3%. (But only 5 members reported revenue.)

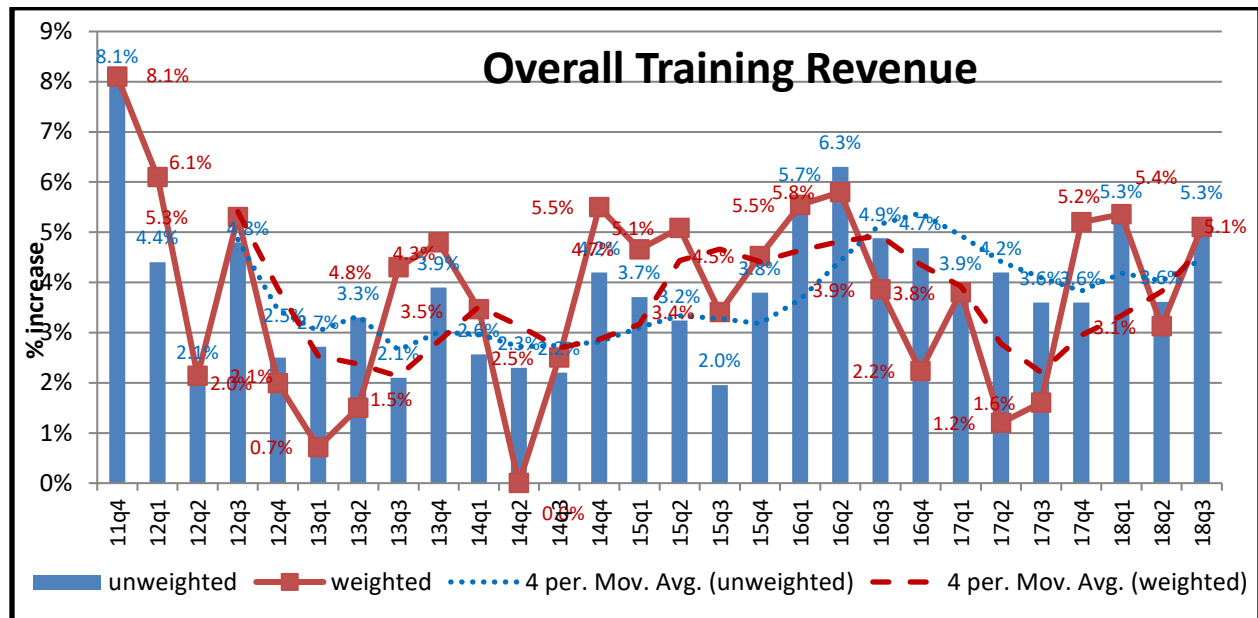
New Learning Modalities is all revenue for social learning, gamification, microlearning, mobile. 2016 showed the trendline at 7%, but it's now bounced back to 3% from flat in 2017. (But only 3 members reported revenue.)

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

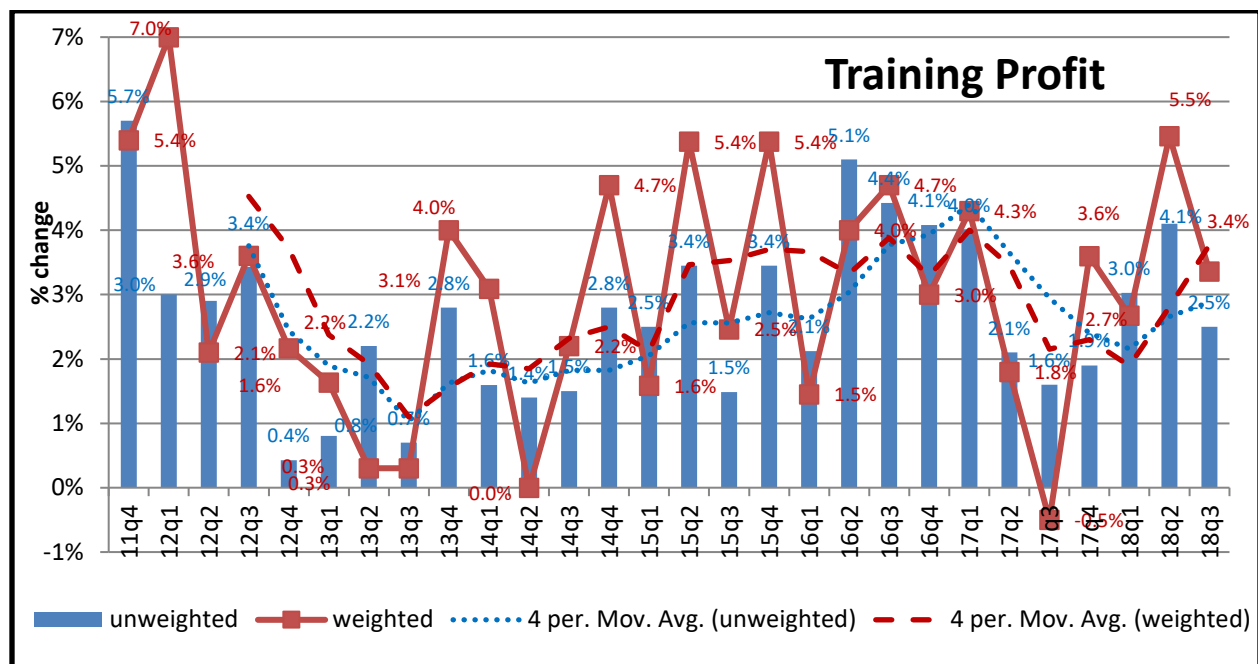
Subscription revenue grew on average 8% during 2016, with the trend now at 6%. 20 reported revenue.

Training Revenue and Profit

The unweighted total training revenue increase for 18Q3 (u=22, f=3, d=8) was 5.3%. The weighted total training revenue increase was 5.1%. The 4-period moving average is currently showing an increase of 4-5% for both unweighted and weighted, almost back to 5% in 2016.

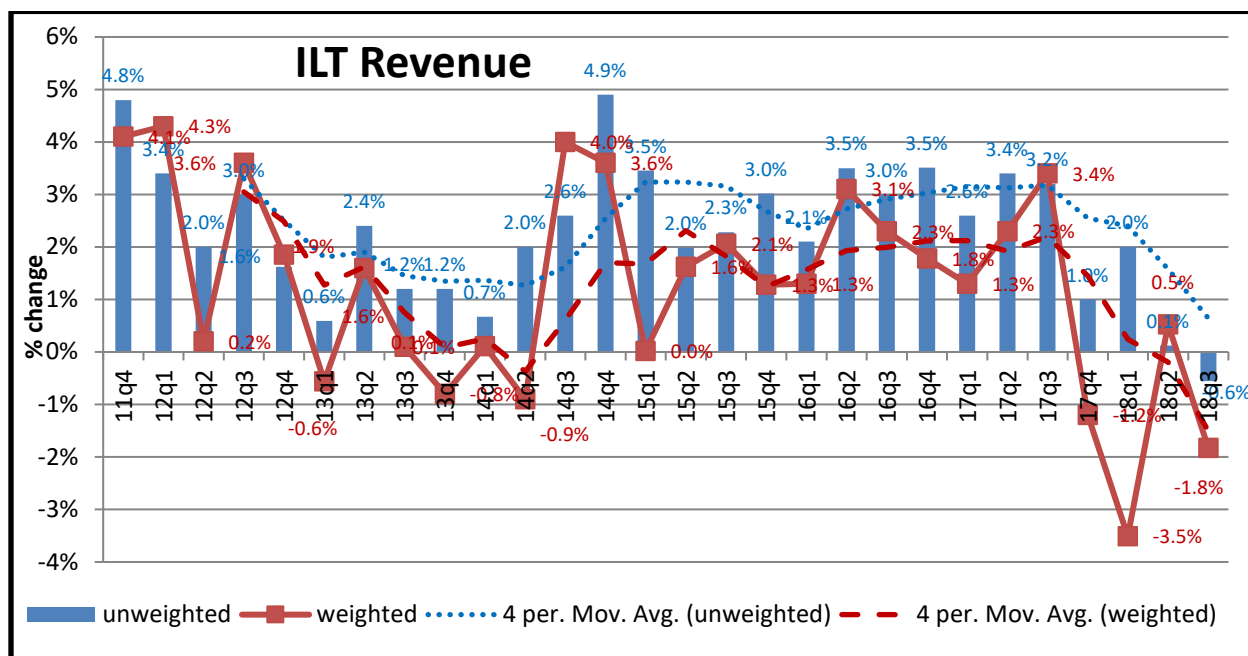


Training profit in 18Q3 (u=18, f=6, d=7) was a 2.5% increase unweighted, and 3.4% weighted. The training profit weighted trendline currently shows a 3-4% increase, back to 3-4% a year ago.



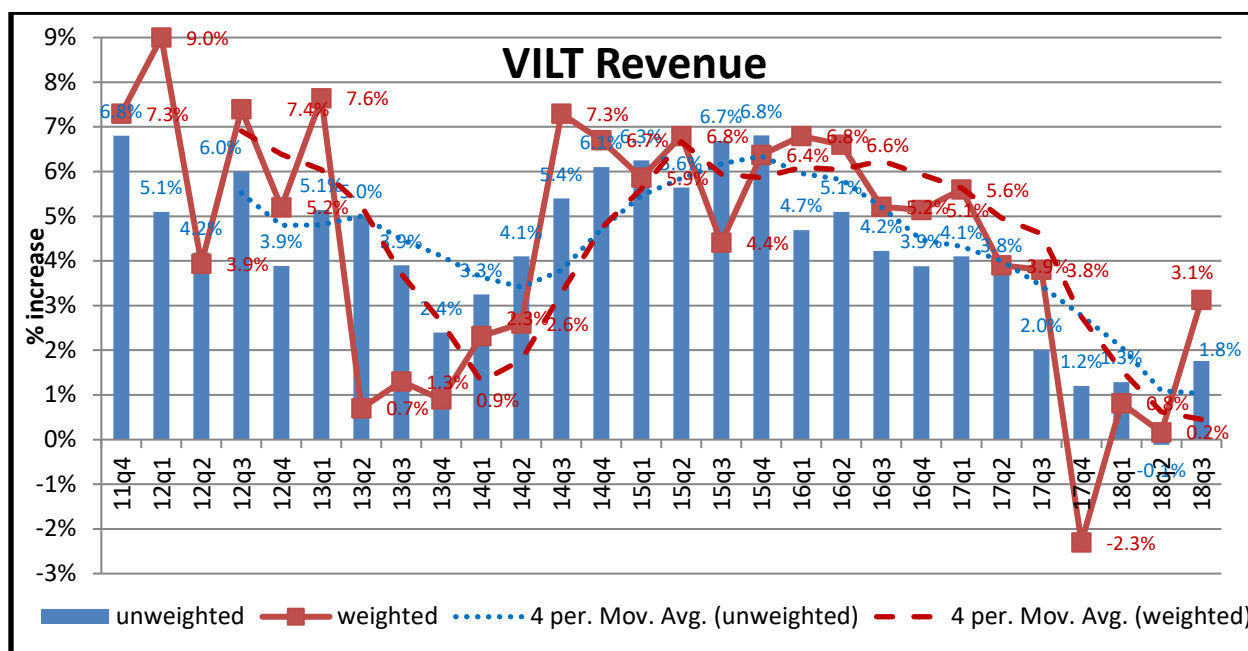
Live Instructor-led Training

The unweighted live classroom **revenue** decrease for 18Q3 (u=12, f=3, d=12) was 0.6% while the weighted decrease was 0.5%. The weighted 4-period moving average is now -1%, from 2% in 2015-16.

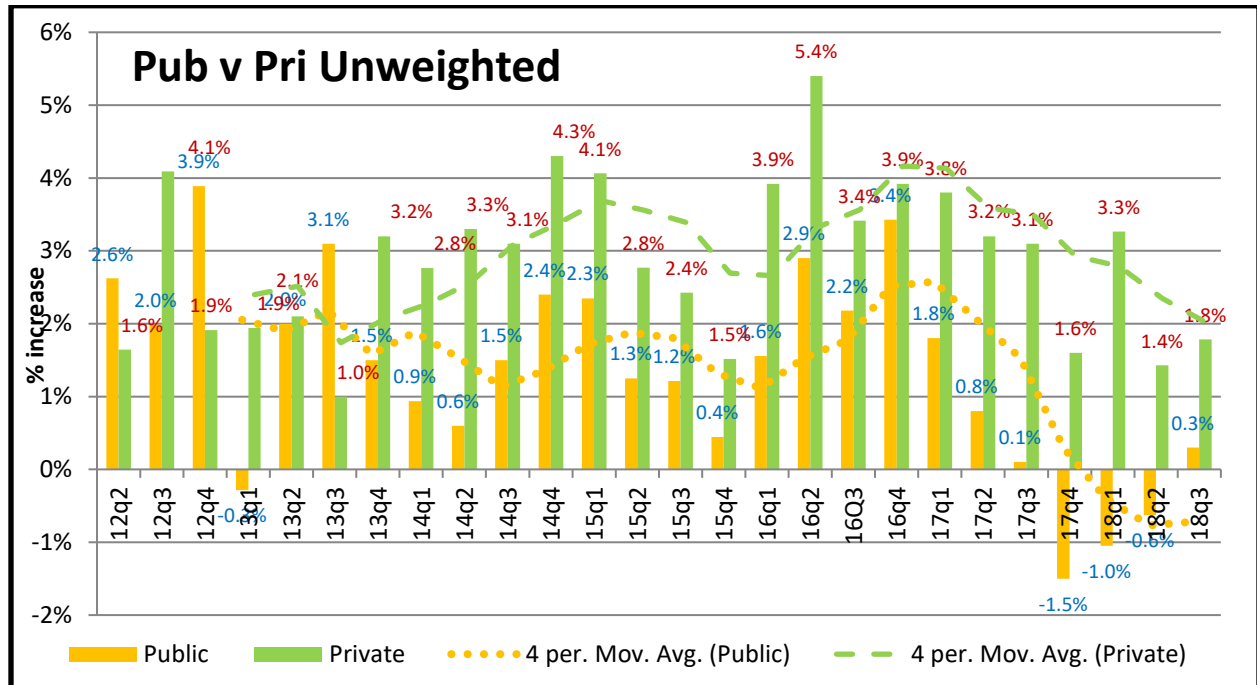


Virtual Instructor-led Training

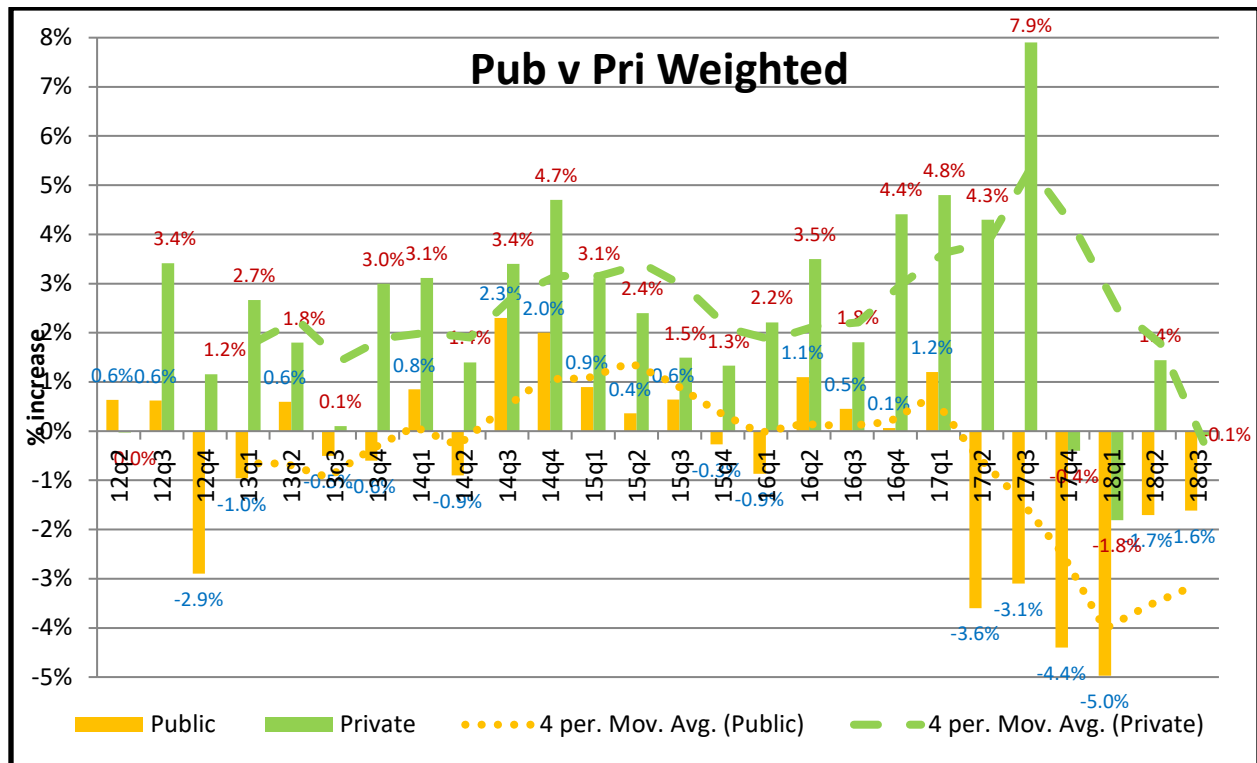
Virtual classroom is still trending downwards. The unweighted virtual classroom **revenue** increase for 18Q3 (u=13, f=4, d=10) was 1.8%. The weighted virtual classroom volume increase was 3.1%. However, the 4-period moving average for weighted has dropped to nearly flat, down from 3% in 2017 and 6% in 2015-16. Note that 27 reported revenue.



We now include questions on public classes and private classes. Unweighted public **revenues** have increased in 18Q3 by 0.3% but private increased by 1.8%. The trendline for public has dropped to negative 1% and for private to positive 2%. (Note that public is u=9, f=4, d=12 and private u=13, f=4, d=11.)

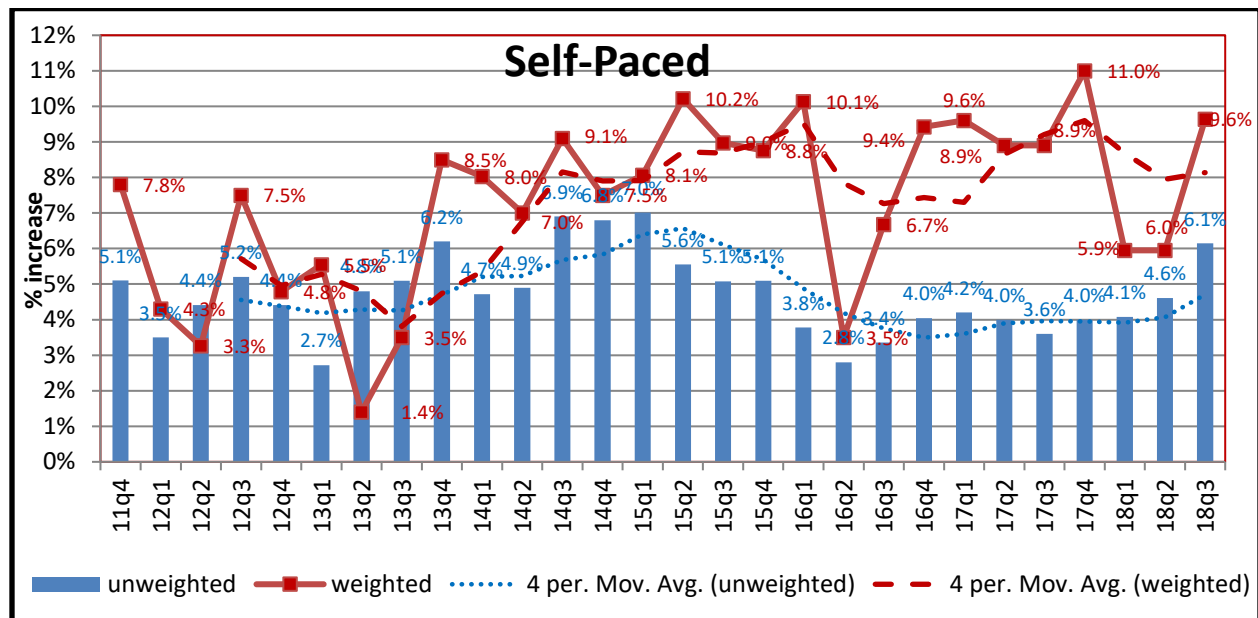


When weighting is considered, the changes are less dramatic, except during 1917. In 18Q3, public **revenue** has decreased 1.6% and private **revenue** decreased 0.1%. The 4-period moving average is negative 3% for public but has now fallen to flat for private.



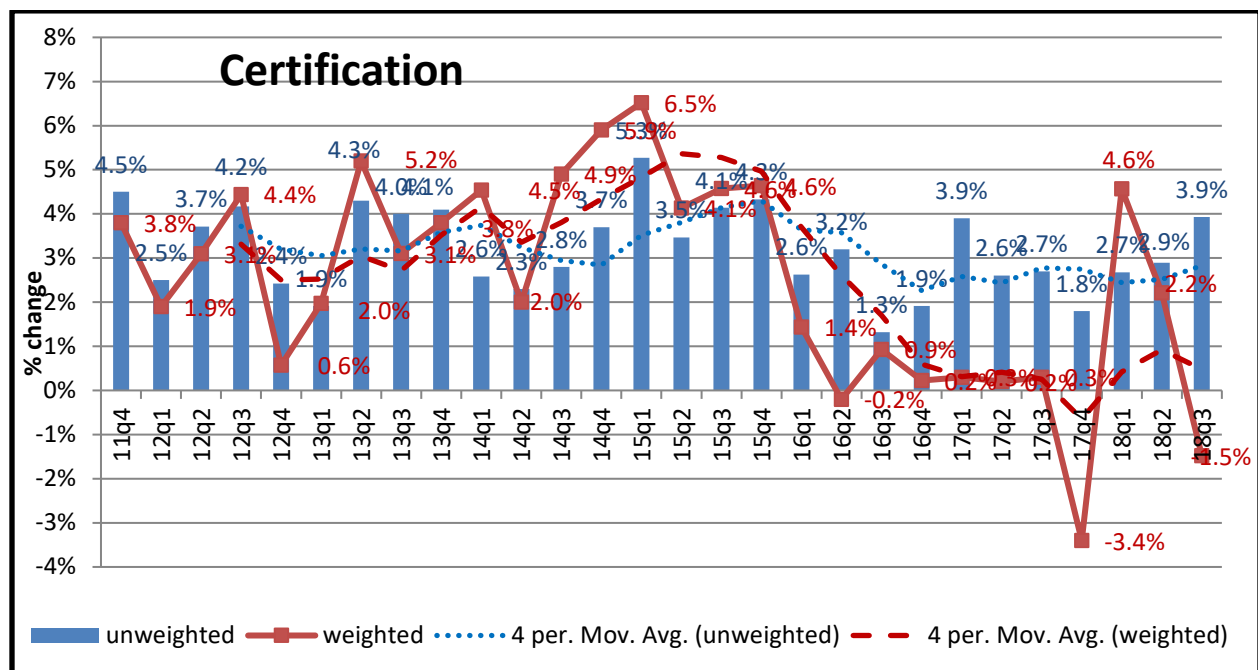
Self-Paced

The unweighted self-paced **revenue** increase in 18Q3 (u=17, f=5, d=2) was 6.1 %. However, the weighted self-paced **revenue** increase was 9.6%. The growth remains much higher than virtual classroom. The 4-period moving average shows 8% for weighted. Note that 24 reported revenue.



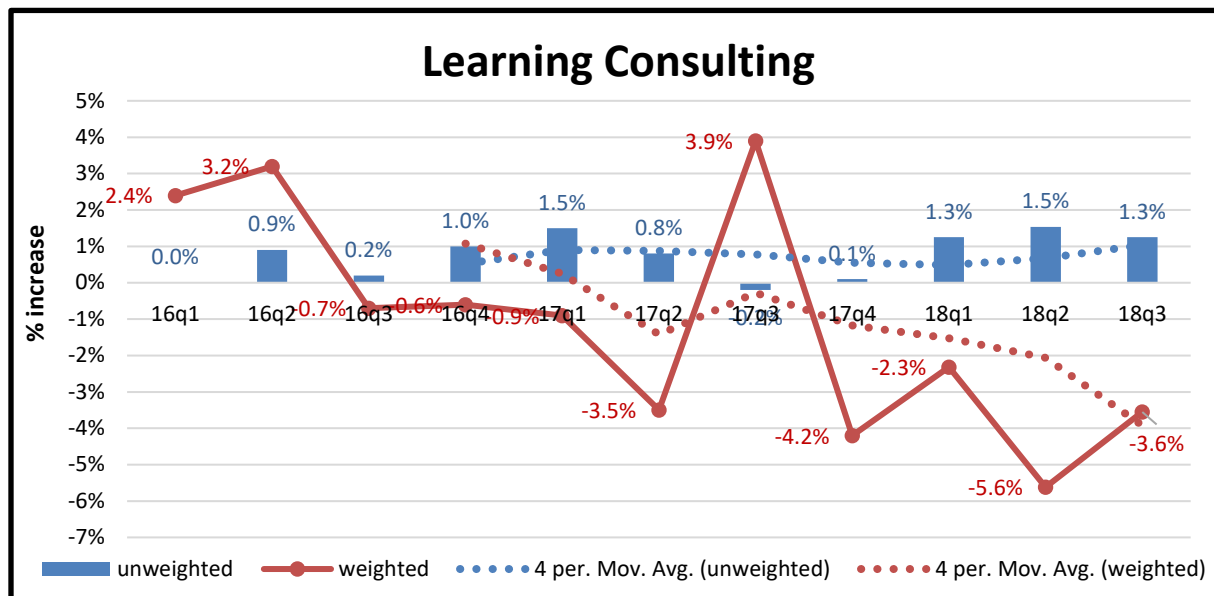
Certification

The unweighted certification **revenue** increase for 18Q3 (u=10, f=6, d=5) was 3.9%, but the weighted certification **revenue** decreased by 1.5%. The weighted 4-period moving average is showing less than a 1% increase. Note that 21 reported revenue.



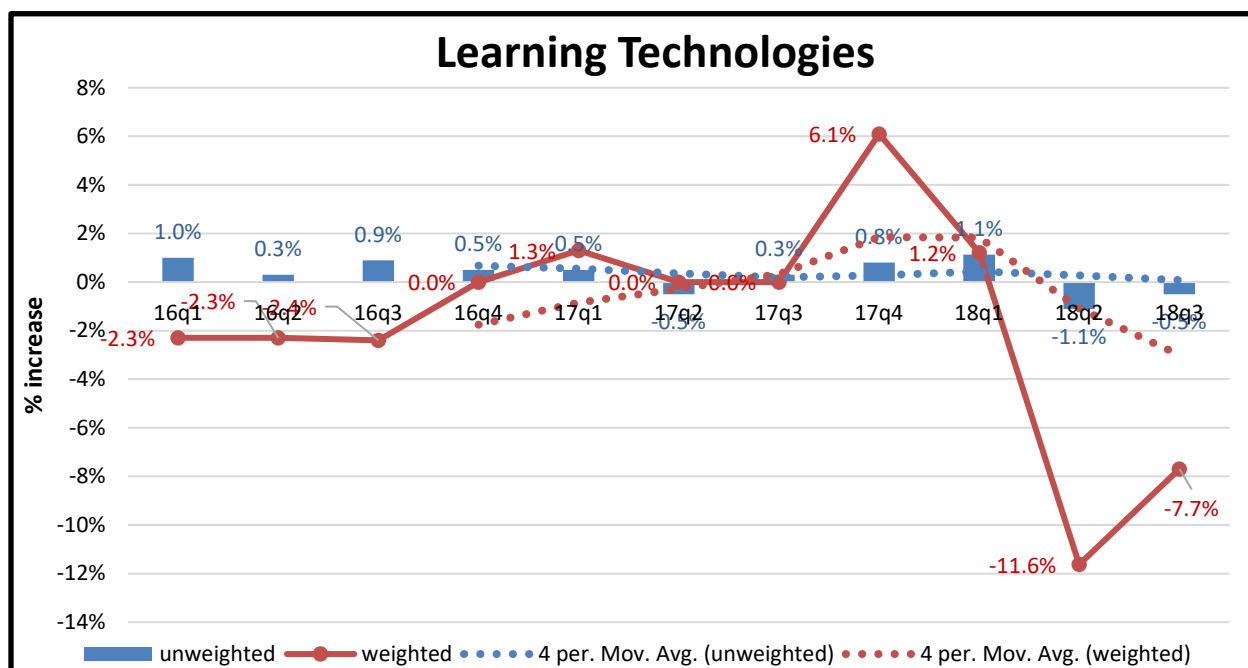
Learning Consulting

We now have more than two 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 4%. The **revenue** changes for 18Q3 (u=4, f=4, d=4) are 1.3% for unweighted but -3.6% when weighted. Note that only 12 reported revenue.



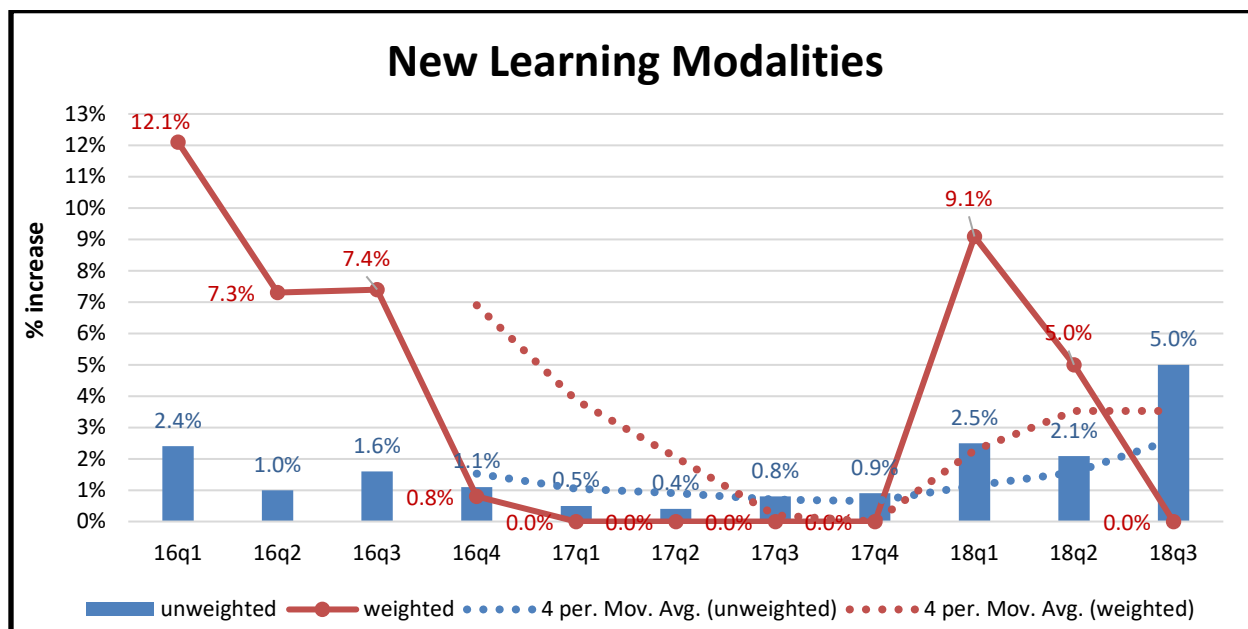
Learning Technologies

We also now have over two years reporting this area. In that period, the unweighted scores have hovered just above flat, but weighted scores now show 3% decrease. The **revenue** decreases for 18Q3 (u=1, f=2, d=2) are negative 0.5% for unweighted and negative 7.7% when weighted. Note that only 5 reported revenue.



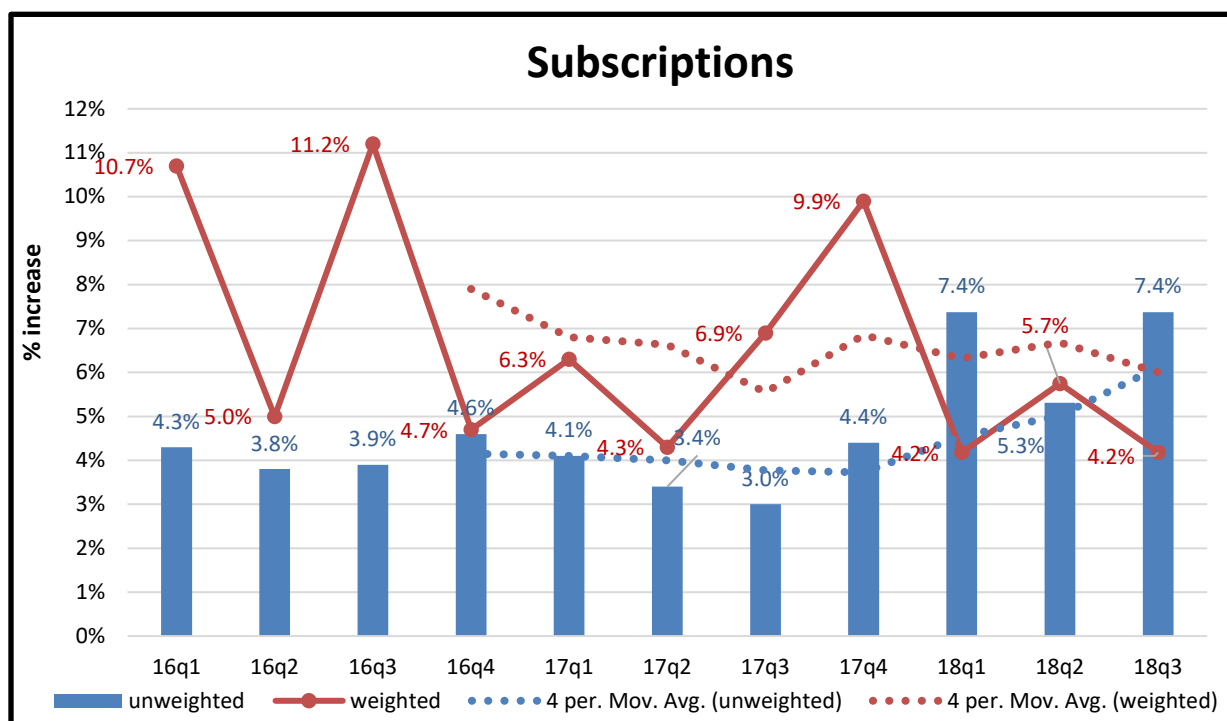
New Learning Modalities

We now have 11 quarterly reports. In that period, the unweighted scores are increasing 2-3%, while the weighted scores are 3-4%, falling from 7% in 2016. The **revenue** increases for 18Q3 (u=2, f=1, d=0) are 5.0% for unweighted flat when weighted. Note that only 3 reported revenue.



Subscriptions

We also have over two years reporting this area. In that period, unweighted scores show a 6% increase and weighted scores 6%, too. The **revenue** increases for 18Q3 (u=15, f=3, d=2) are 7.4% for unweighted and 4.2% for weighted. Note that 20 reported revenue.



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

1. Custom training with customers
2. Webinars and onsite
3. Subscription is now over 75% of total revenue
4. Partner Training
5. Internal EE Training
6. Onsite and subscription grew most for our Digital and flagship products
7. Virtual Instructor Led, in EMEA
8. Webinars
9. Virtual
10. Self-paced sold as a subscription
11. Learning consulting and change management services
12. Cloud
13. EU pharmaceutical supply chain software (important law going into effect in 2019)
14. We see a significant increase in attach for our flagship product that aligns with product sales
15. Subscription based self-paced training has grown proportionately compared with the same quarter a year ago
16. Network automation, SDN and DevOps
17. Data Science/Machine Learning
18. Our subscription program launched in 2017 and we see that growing. 96% of our education sales are subscriptions. Our subscription program includes our entire portfolio, e-learning, ILT, VILT, customer conference and pre-conference education.
19. Dedicated VILT, split modality private onsite/VILT
20. Note, the previous questions were not answered as Training in our company is a cost center and so we do not charge for our training. The following areas saw the biggest increase: 1. Developer training (re: how to customize our code) 2. Cloud Operations how to use our tools to deploy our product in AWS
21. Self-paced
22. WorkForce Management - Cloud Based & VIA
23. Subscription library
24. Private classes
25. Subscriptions (includes self-paced and VILT)
26. Customized onsite training
27. We launched a subscription program during Q1 2018 which contains unlimited self-paced training. This is the area of our business which is growing
28. Our business cloud products
29. Self-paced - ILT recorded classes saw the biggest increase, subscriptions are starting to gain momentum.
30. No material changes
31. Core technology Database, Search, Analytics
32. Classroom, technical training. Technical aspects of our SaaS product line. Customers are wanting more than features and functions.
33. Online course attendance increased by over 100%

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

1. Standard live classroom training
2. Video, online
3. VILT/ILT - bundled as part of subscription program as per our strategy to drive 80% plus subscription. Moving traditional services revenue over to SaaS model
4. eCommerce
5. Add-on products see the least training volume
6. Public (open) enrollments - F2F training; Learning Consulting
7. Public training
8. Public and Private ILT
9. public and private classroom delivery
10. Firewall Basics
11. US pharmaceutical supply chain software (important law adopted in 2017)
12. Aster training as product is being replaced
13. Data Analyst (SQL)
14. Instructor-led classes one-off seats in a class and onsite training at customer location.
15. Public ILT
16. Solutions Architect - how to make architectural, integration, and API designs when implementing our product
17. Virtual, instructor-led
18. Premise based
19. Certification business
20. Public schedule classes in a classroom
21. Certification
22. Both ILT and VILT continue to decline.
23. Private classes were down
24. No material changes
25. Live Webinars. They want them recorded and watch them later.
26. Quantity of new video content, use of our virtual hands-on labs

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

1. Content creation for the variety of customers
2. Need for course offerings in alternate time zones; inability to keep up with agile programming changes in our online videos
3. Bandwidth and subscription churn
4. Reorg
5. Ensuring high quality certification results with proctored exams (currently open book) aligning to rapidly evolving company strategy
6. Sales - we don't have a dedicated Education sales force; Shifting our organizational mindset to "Digital Learning", and from traditional classroom delivery
7. Content creation and ad-hoc requests
8. Net new license sales; no major new product releases
9. New product released that has a different, lower revenue generation model for EDU and declining sales of legacy product

10. Attach rate; Past the adoption phase, now in sustainment phase
11. Developing a subscription model -- transitioning from free content to fee-based training.
12. Significant realignment of company strategy to focus on a narrow set of very big customers; delay in new products means delays in new training offerings to bring to market
13. Macro pressures to grow operations with little/no additional headcount; Declining business from our training partners - these lower margin services business are struggling to maintain competitiveness and profitability in competition against 3rd party OnDemand sites as well as our own OnDemand learning products.
14. Sales compensation models and non-focused marketing from HQ; Accelerating content development time
15. Getting customers to actually consume the training they purchased, both on-demand and instructor led; Renewing the education subscription the second year, we have been running roughly at 40-45% renewal.
16. Time away from the job to take training - even if customer has already purchased a training program.
17. Team capacity - the business and our product direction are changing rapidly, our team does not have the capacity to carry on providing training and generate brand new programs within the required timelines; Planning Discussions - with all the changes being discussed with our product (everything from re: architecture, to move to SaaS delivery) our team is not brought into the conversations in regards to these changes at the right time so we can be part of the planning discussions. We are always playing catch-up which makes us ineffective, and also puts the changes at risk for not being as successful as they could be (why don't people see this - training plays a large factor in a products success)
18. One big challenge - getting product sales to attach training credits.
19. Operational inefficiencies in learning management registration and team capacity delivering curriculum on new features
20. VIA Subscriptions - giving free training revenue through product attach; Reduced product sales
21. Subscription renewal; Certification value proposition
22. Resources!!! Lack of efficiencies in reporting for sales team.
23. Instructor depth of subject matter; Partner opinion of Education offerings
24. Resource allocation in a growing market; Getting online learning pricing right.
25. Marketing and Selling our new training subscription is challenging.
26. Company undergoing an overall major shift to recurring revenue; No investment dollars to use to morph our offerings to match up to the recurring revenue focus
27. Accounting Rules with dramatic differences between GAAP and Delivered Revenue/Margin. Decreased backlog leading to slowing of revenue.
28. Building internal and external awareness of training offerings.
29. Lack of available talent for hiring instructors and sub-contractors
30. I don't have the proper resources to deliver the training product that needs to be delivered. Change of my manager 3x this year (and the year isn't over!)
31. Technology and technology. Outdated, in-house developed LMS not suitable for e-learning. Finally got approval for a new LMS after 1.5y of project approval. Further challenges in getting help from the organisation - resources stretched further than previous years.

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

1. Increase in access to our Self-paced library. Education Consulting; Decrease in Virtual classroom
2. Pace of change has never been greater; greater demand for persona-based end user training and change management guidance
3. Our public training market has been eroding for a few years. OnDemand training consumption is not where we'd like to see it; adding in weekly ILT sessions to bolster blended models is our next step to help on this front. LMS vendors still don't seem able to put together a complete solution. Requirement for Training teams to tie into corporate goals more apparent than ever; but reporting on indirect influence is challenging.
4. We are considering making all our foundational/entry level content free to the Administrators of our software.
5. Customers outside North America are looking for certification, inside North America are indifferent.
6. For too long everyone thinks if I provide documentation that is all that is needed. So, they rush to get something out the door and as long as there is documentation then that is all that is needed. Training is a luxury (attitude).
7. Digital badging is taking this forward rapidly.
8. More demand for subscriptions
9. More training organizations (like mine) are expanding their purview into the Customer Success/Experience arena (not really new).
10. Generally steady, no major decline or growth