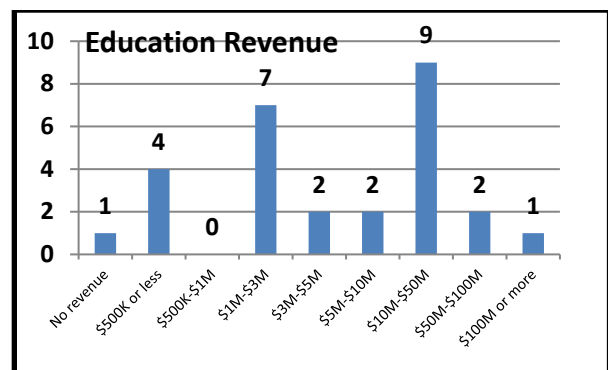
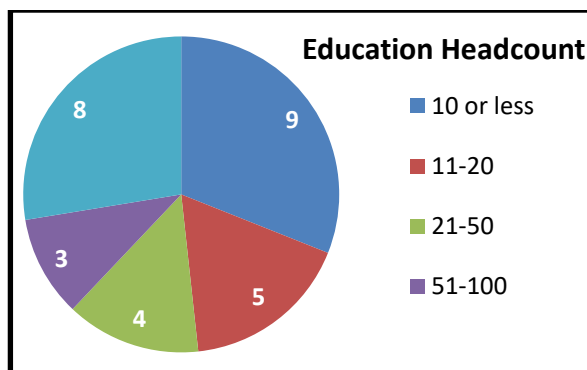
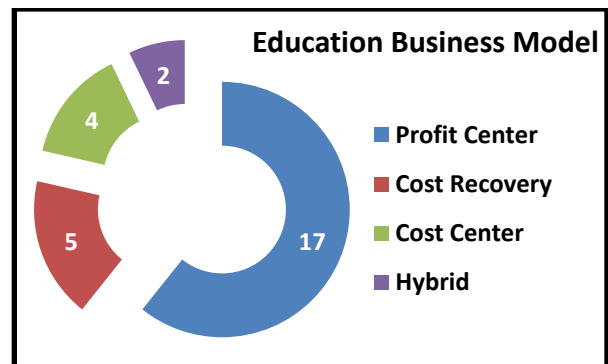
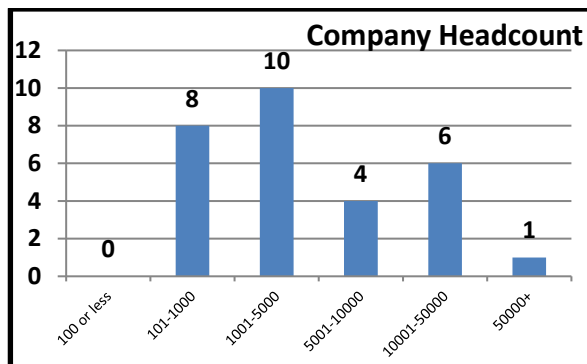
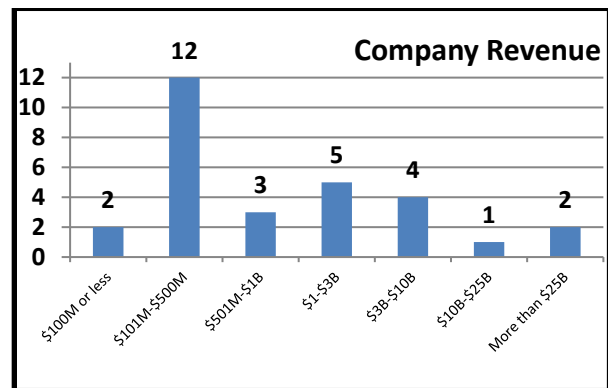
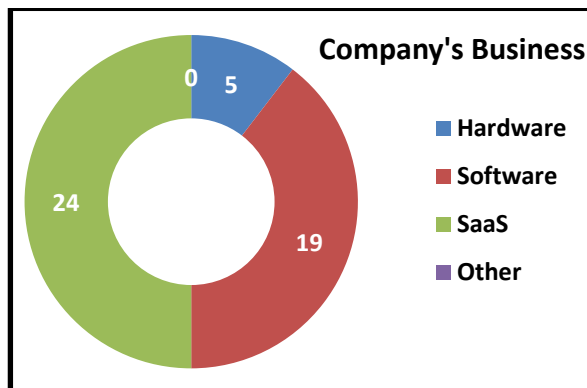




CEdMA Training Market Barometer 2nd Quarter 2019 Actual

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 25 responses for global and 4 for North America so the combined 29 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** (but some about **volumes** added back in 18Q4)
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 1-2% to 19Q2. This last quarter was actually flat compared to 18Q2.

Operating profit is revenue minus all fixed and variable costs, excluding allocations, divided by revenue. The growth trend is 1% to 19Q2, down from 4% in 2016, and 3% in 2018.

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 negative 3% to 19Q2.

Virtual Classroom (VILT) is all revenue for instructor-led training via the web, with or without virtual labs. Growth has dropped from 6% in 2015-16, to 3% in 2017 but is now just 1% to 19Q2.

Public (scheduled) classes is revenue for ILT and VILT and the trend has dropped to negative 4% to 19Q2, having peaked at 1-2% in 2014, and been flat in 2015-16, but negative since 2017.

Private (one-customer) classes is revenue for ILT and VILT, and now showing a trend around flat to 19Q2, having been 3% in 2014, 2% in 2015 and 4-5% in 2016-17.

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 to 19Q2, having grown steadily from a 5% increase in 2013. Note that 19 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/VILT/self-paced. The trendline is negative 1% to 19Q2, falling from 5% in 2015, but flat since then. 19 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 to 19Q2 is showing negative 1%, having been as low as negative 4% for 2018. (But only 13 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 5% to 19Q2. (But only 4 members reported revenue.)

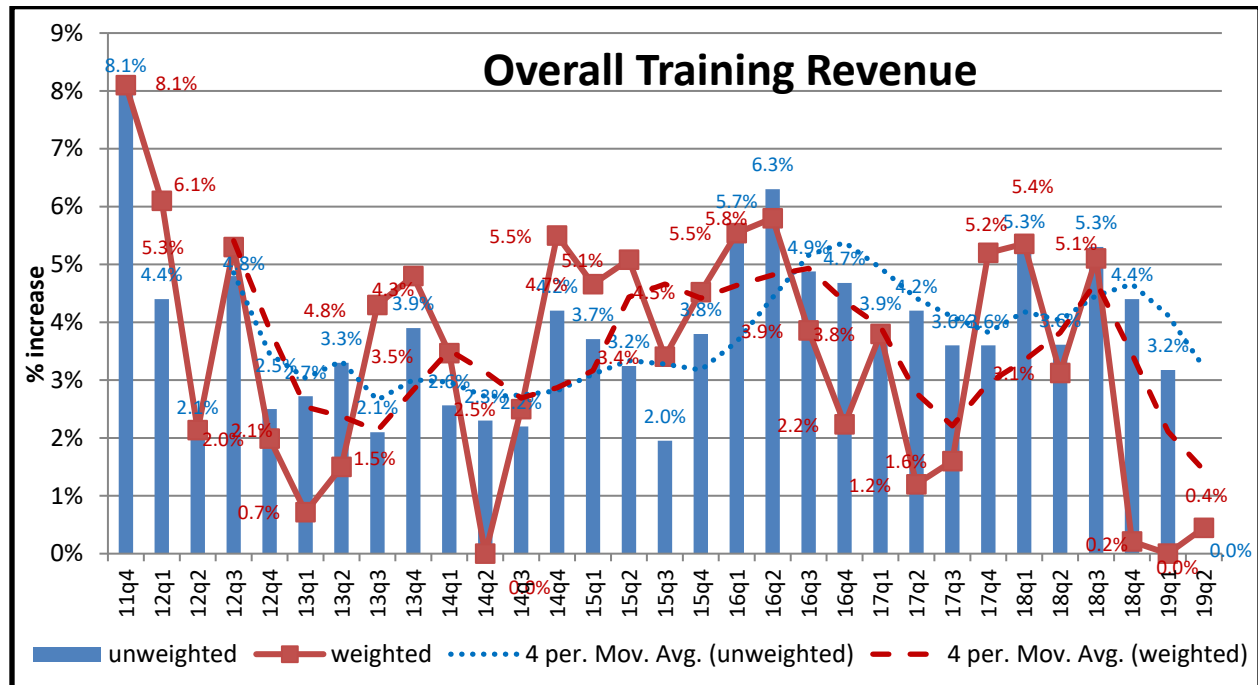
New Learning Modalities is all revenue for social learning, gamification, microlearning, mobile. 2016 showed the trendline at 7%, but it's now flat to 19Q2, having peaked at 5% in 2018. (But only 4 members reported revenue.)

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

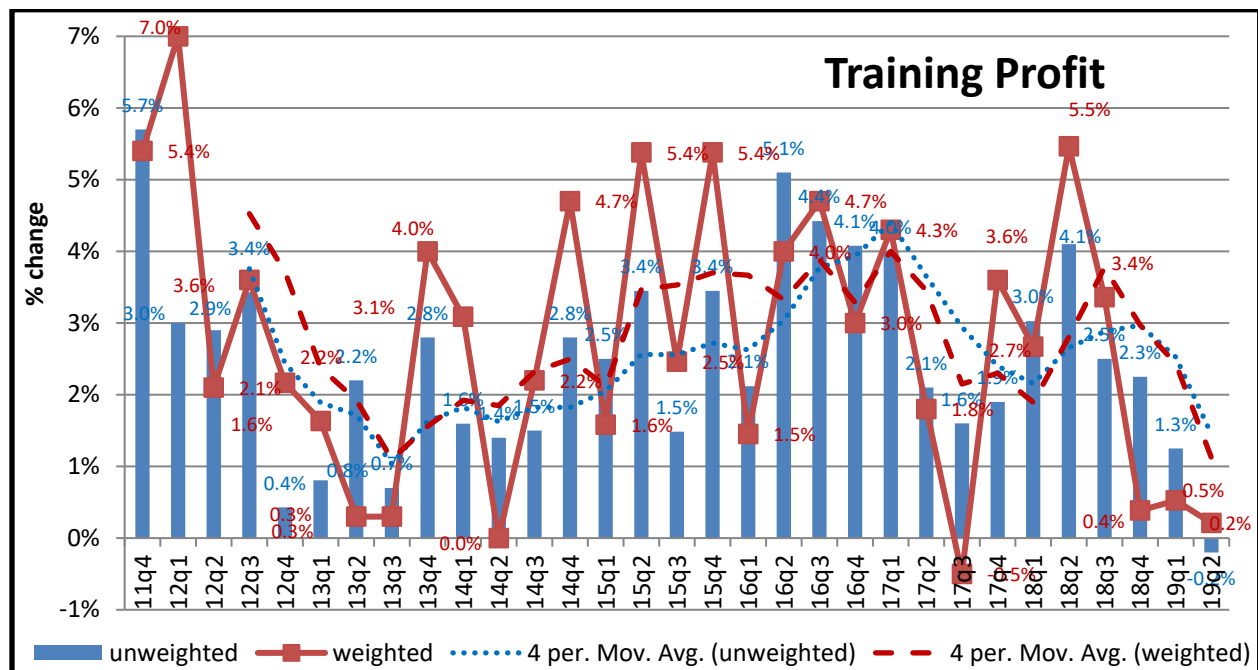
Subscription revenue has grown consistently 6-8% from 2017. 18 reported revenue.

Training Revenue and Profit

The unweighted total training revenue increase for 19Q2 (u=12, f=3, d=12) was 0.0%. The weighted total training revenue increase was 0.4%. The 4-period moving average is currently showing an increase of 3% for unweighted and 1-2% weighted.

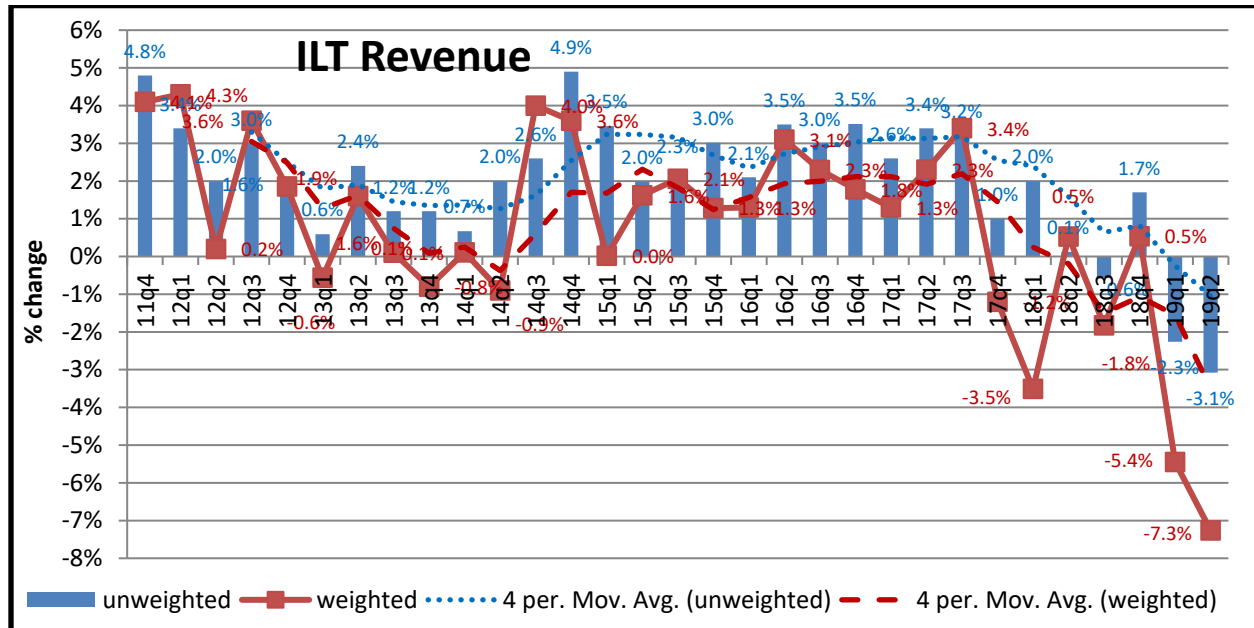


Training profit in 19Q2 (u=11, f=5, d=9) was a -0.2% decrease unweighted, and 0.2% weighted. The training profit weighted trendline to 19Q2 has fallen to a 1% increase.



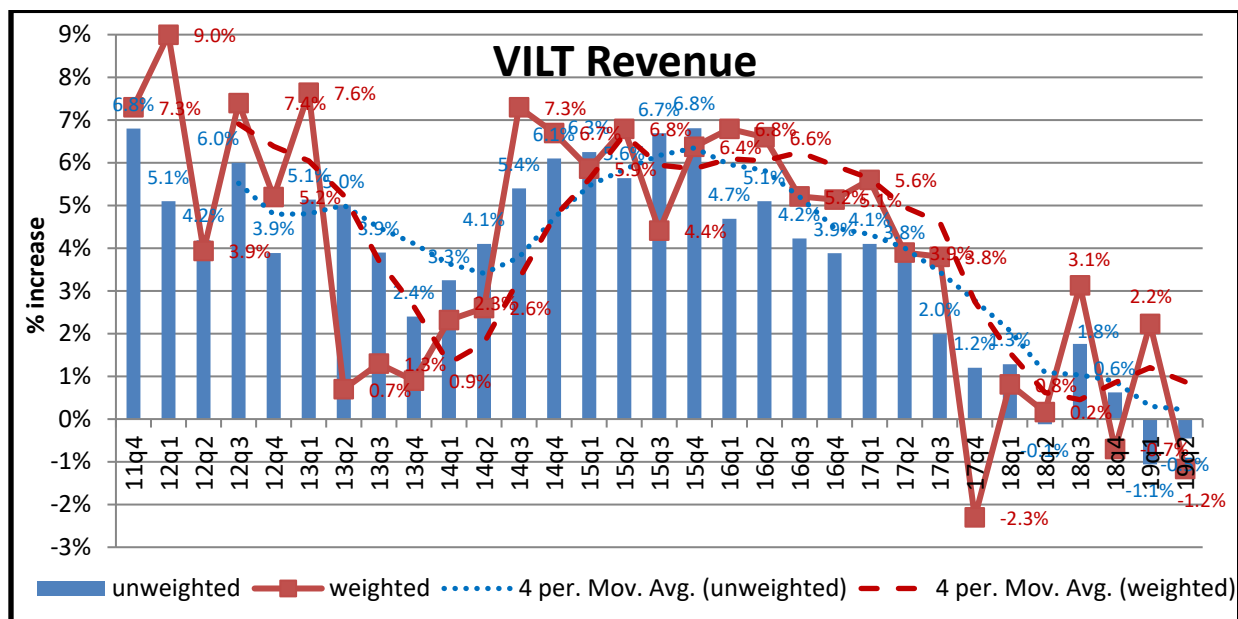
Live Instructor-led Training

The unweighted live classroom **revenue** decrease for 19Q2 (u=7, f=4, d=15) was -3.1% with weighted -7.3%. The decrease in **volume** was -0.7%. The weighted 4-period moving average is now negative 4%. This is a serious downturn in ILT revenue.

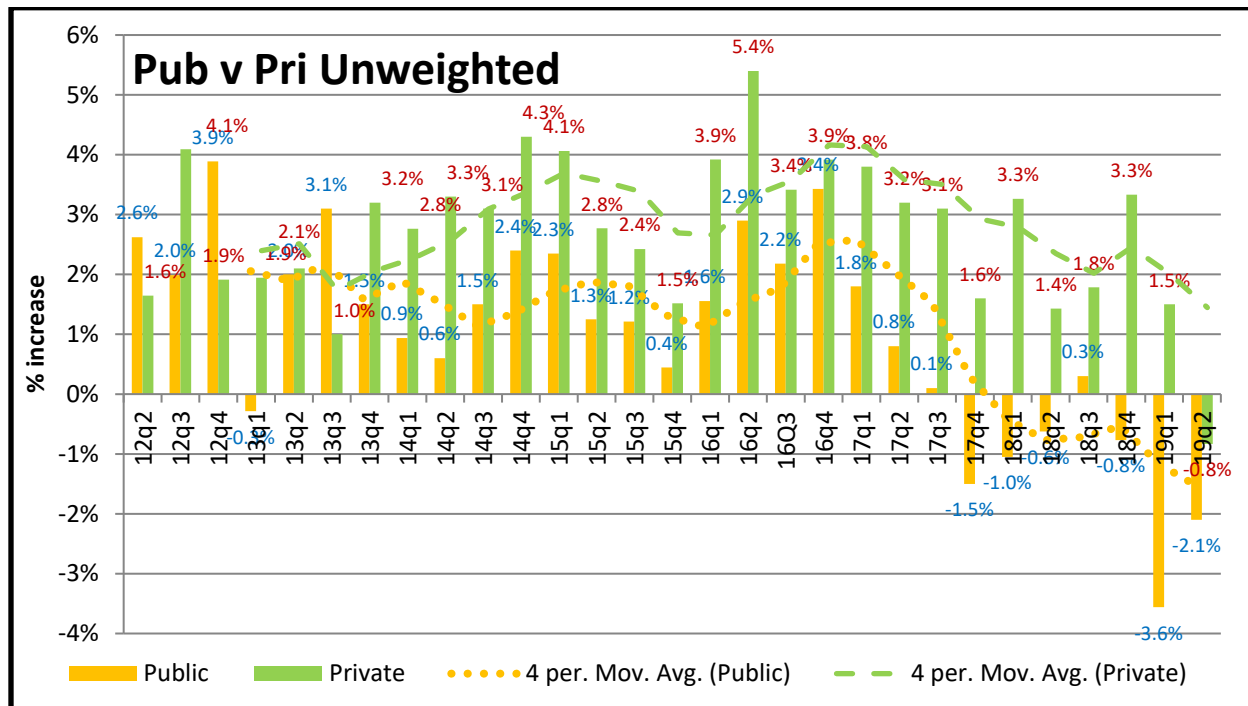


Virtual Instructor-led Training

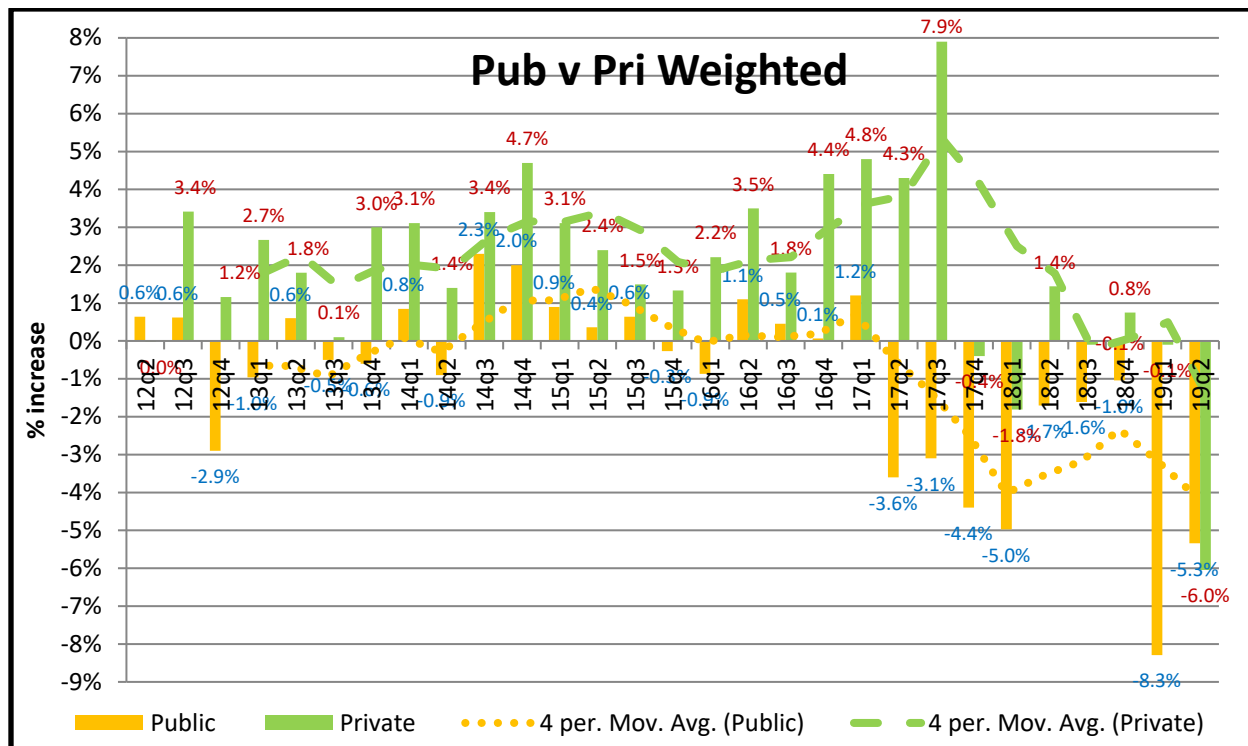
Virtual classroom continuous trending downwards. The unweighted virtual classroom **revenue** decrease for 19Q2 (u=6, f=6, d=10) was -0.5%. The weighted virtual classroom **revenue** decrease was -1.2%. However, increase in **volume** was 0.5%. The 4-period moving average for weighted remains at 1%, down from 3% in 2017 and 6% in 2015-16. Note that 23 reported positive revenue.



We include questions on public classes and private classes. Unweighted public **revenues** have decreased in 19Q2 by -2.1% and private decreased by 0.8%. The decrease in **volume** was -1.8% for public but there was an increase of 0.1% for private. The trendline for public has dropped to negative 1-2% and for private to positive 1-2%. (Note that public is u=7, f=4, d=14 and private u=8, f=8, d=11.)

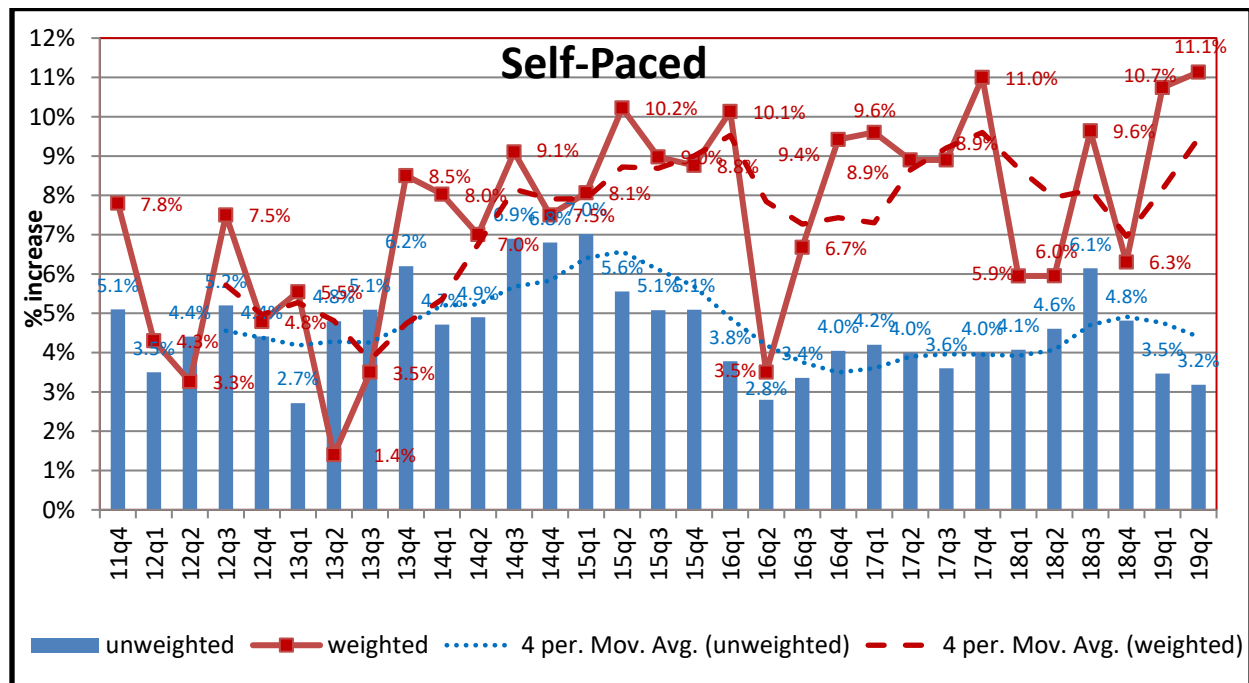


When weighting is considered, the changes are more dramatic. In 19Q2, public **revenue** has decreased -5.3% and even private **revenue** decreased -6.0%. The 4-period moving average is negative 4% for public and negative 1% for private.



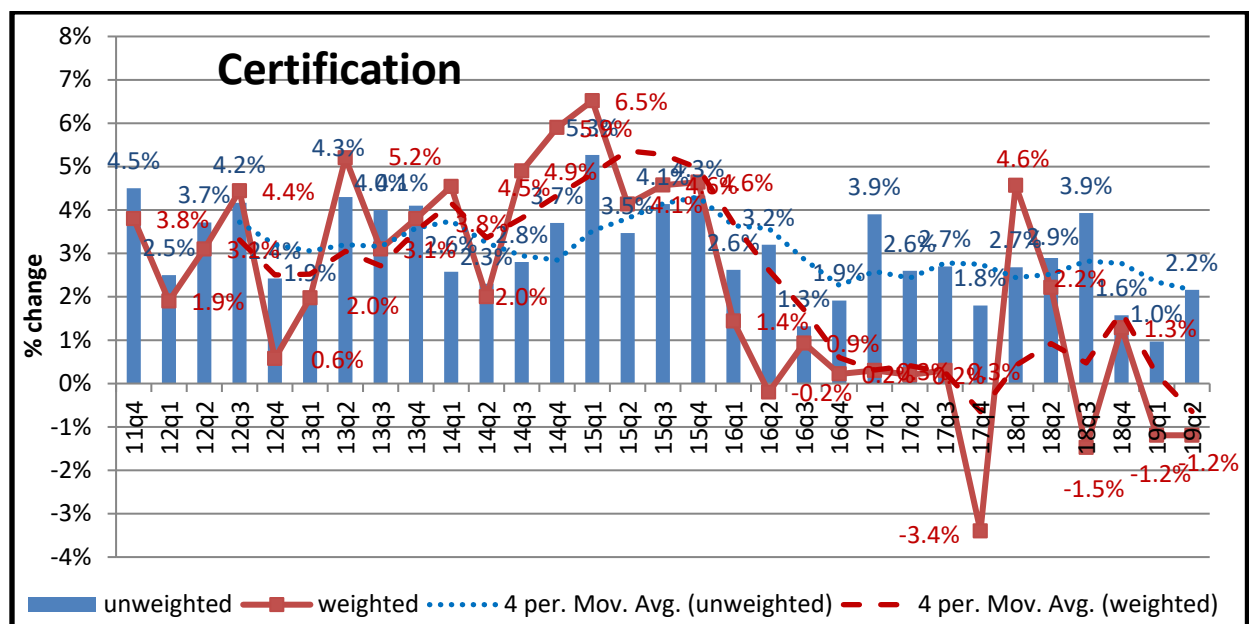
Self-Paced

The unweighted self-paced **revenue** increase in 19Q2 (u=13, f=6, d=3) was 3.2%. However, the weighted self-paced **revenue** increase was 11.1%. The increase in **volume** was 5.3%. The 4-period moving average shows 9% for weighted. Note that 19 reported positive revenue.



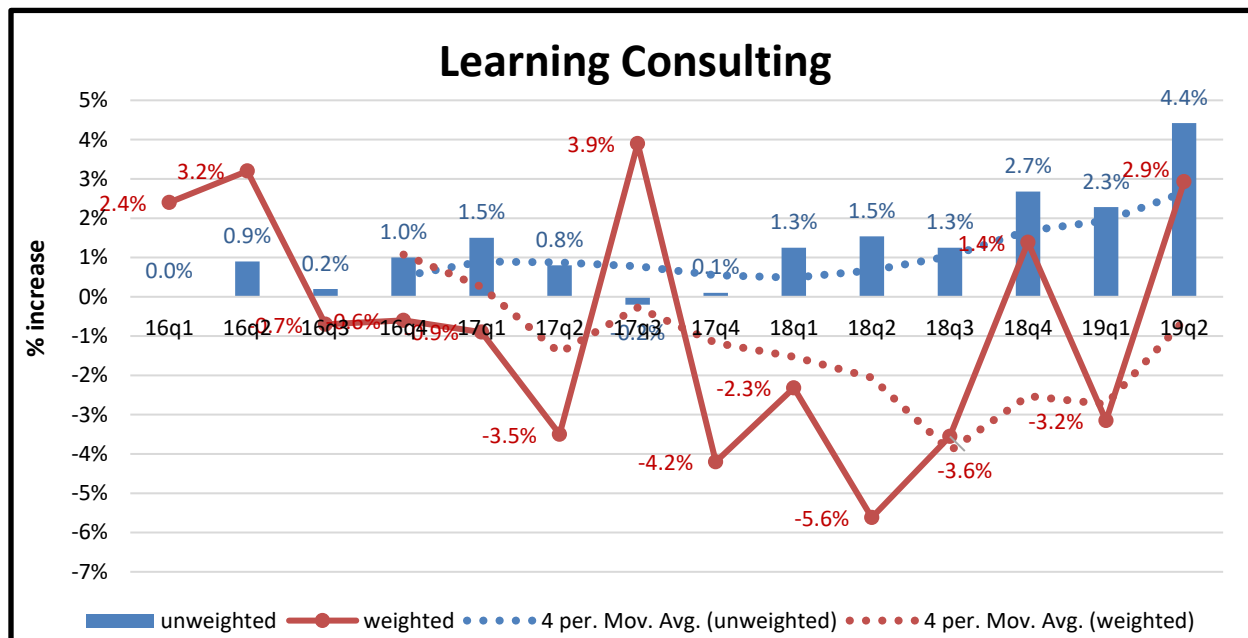
Certification

The unweighted certification **revenue** increase for 19Q2 (u=9, f=9, d=4) was 2.2%, but the weighted certification **revenue** decrease was -1.2%. The increase in **volume** was 2.7%. The weighted 4-period moving average is negative 1%. Note that only 19 reported positive revenue.



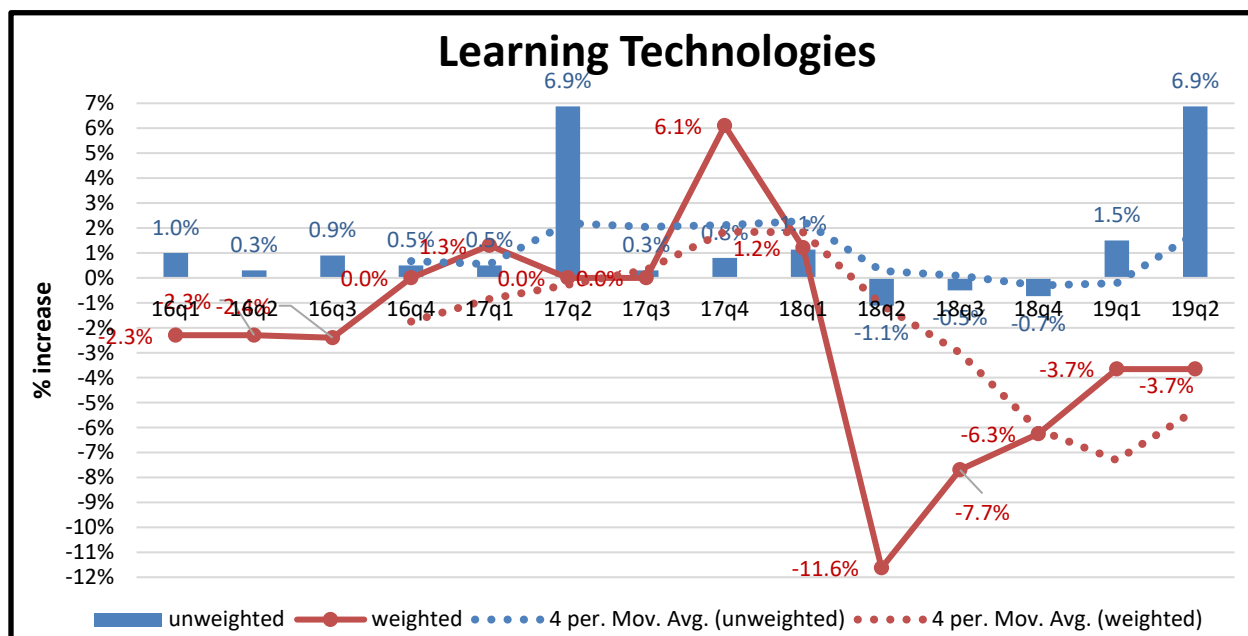
Learning Consulting

We now have over three years reporting this area. In that period, the unweighted scores have risen only in the last year. Weighted scores have been volatile and show a moving average of negative 1%. The increase in **volume** was 2.8%. The **revenue** changes for 19Q2 (u=8, f=2, d=3) are 4.4% for unweighted and 2.9% when weighted. Note that only 13 reported positive revenue.



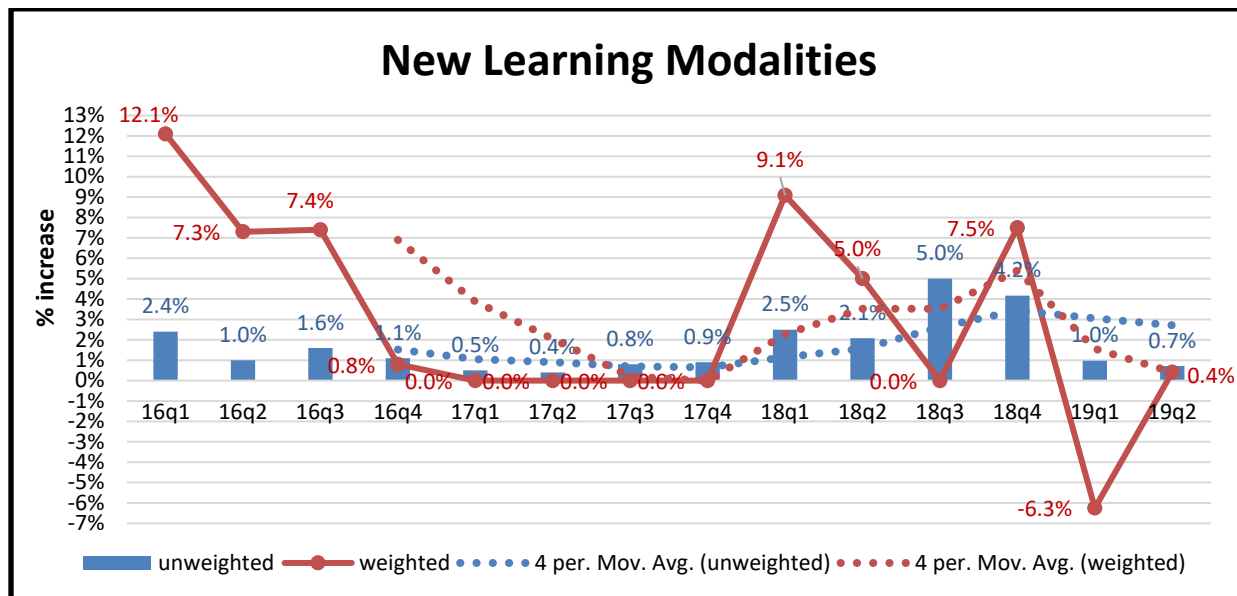
Learning Technologies

We also now have more than three years reporting this area. In that period, the unweighted scores have hovered around flat, but the trendline for weighted scores now shows 5-6% decrease. The **revenue** changes for 19Q2 (u=3, f=1, d=1) are positive 6.9% for unweighted and negative 3.7% when weighted. Note that only 4 reported positive revenue.



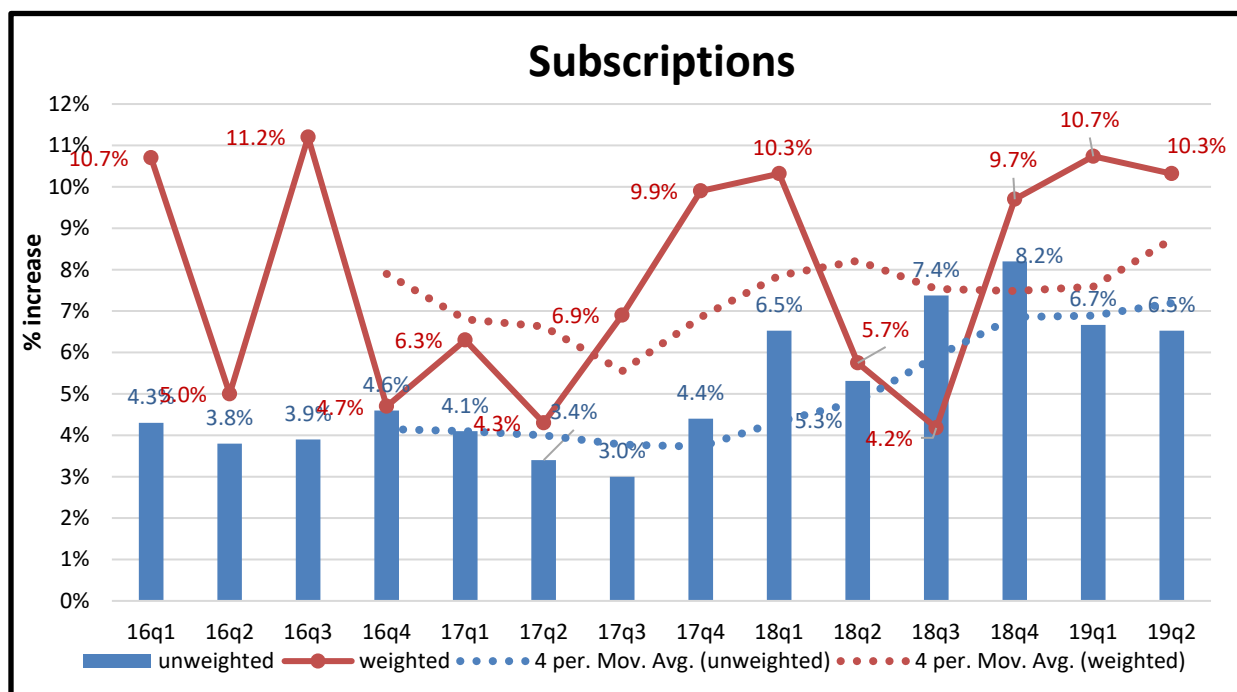
New Learning Modalities

We now have 14 quarterly reports. In that period, the trendline for unweighted scores is increasing 3%, while the weighted scores are flat, falling from 7% in 2016. The increase in **volume** was 1.9%. The **revenue** increases for 19Q2 (u=2, f=5, d=0) are 0.7% for unweighted and 0.4% for weighted. Note that only 4 reported positive revenue.



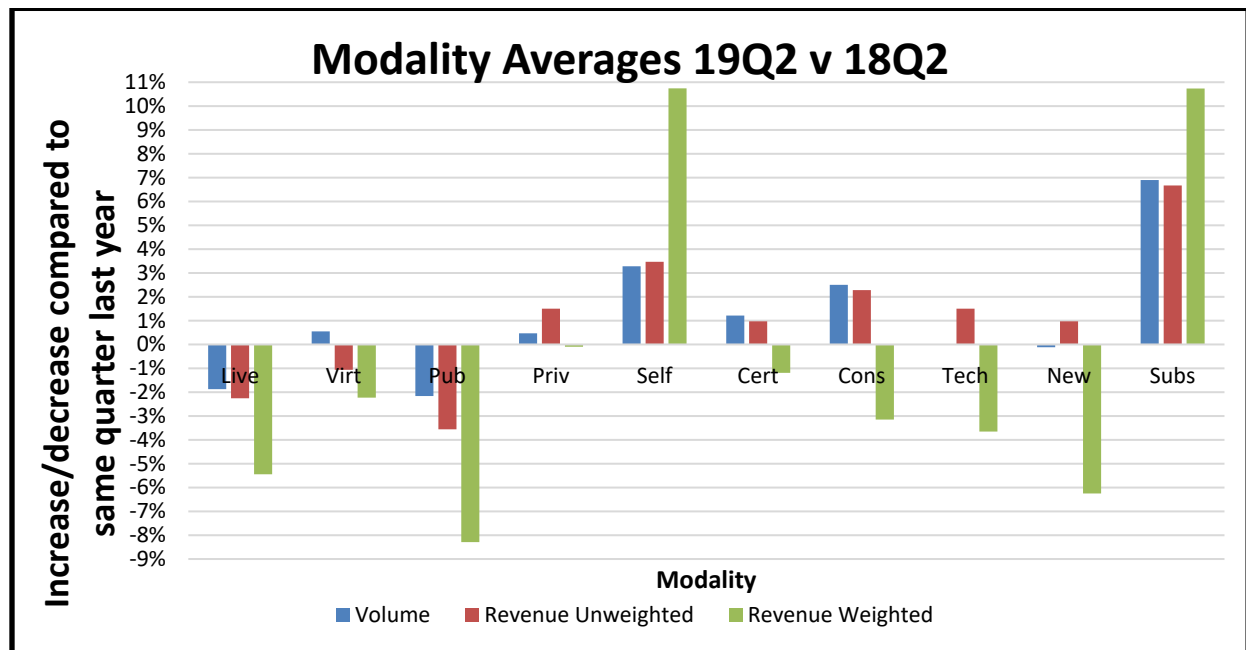
Subscriptions

We also have over three years reporting this area. In that period, unweighted scores show a 7% increase and weighted scores 9%. The **revenue** increases for 19Q2 (u=13, f=3, d=2) are 6.5% for unweighted and 10.3% for weighted. The increase in **volume** was 6.5%. Note that 18 reported revenue.



Volumes as well as revenue

We now ask for percentage movement of modalities by volume of students in addition to or instead of revenue. Of course, averages will only be for unweighted input. Here's the comparison for 19Q2.



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

1. Cloud and Axon
2. Custom training (learning consulting)
3. 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. 2019 - We made 75% of our on-demand content freely available to the public but our biggest impact with making it available was not watching end to end courses it is the views we receiving in videos we've embedded to our support articles.
4. VILT
5. Subscription revenue now that we have mandatory attach of 5% ACV of each deal
6. Kubernetes and Cloud
7. T3 classes supporting Partner enablement - Q2; 7% up YoY; Curriculum sales to partners up 5% YoY
8. Custom training with customers
9. Product Essentials training
10. We have seen an increase in taking advantage of the self-serve option for the same ILT courses which contain the same content. It seems people are adjusting to how they learn to see the advantage of a flexible training schedule rather than a committed schedule. It also allows them to see the training materials as more than a box to tick or a one-time thing but a source of reference material in the time of need.
11. subscription is now over 75% of total revenue.
12. Private classes
13. 110% focus on ARR as the primary measure of revenue success, so subscription offerings

14. EU pharmaceutical supply chain regulations
15. End User topics in our learning library
16. Classroom, technical training; Technical aspects of our SaaS product line; Customers are wanting more than features and functions.
17. Private training
18. Certification, specialty/more advanced topics and training on our latest software platform
19. Training classes sold with Support Contracts ("Support Contract Attach") grew significantly; ILT/VILT in new technology areas
20. YouTube channel subscribers up by 20%; Growth in online training has allowed us to run focused regional workshop events that highlight value through new products and initiatives. These are a cross learning-marketing initiative and have been very successful so far with several of the sales team explaining how this may lead to new business (mixing prospects with experienced customers)
21. Business has clearly separated into two streams - bespoke training events, and on-demand /self-paced training. Bootcamp-type web sessions and technical topic-specific webinars are also doing well quarter over quarter.
22. Data Science/Machine Learning; Streaming Data
23. Core technology; Database, Search, Analytics
24. Self-paced sold as a subscription
25. Cloud
26. New courses on new products...
27. Subscriptions
28. Learning consulting and change management services

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

1. PowerCenter
2. self-paced on demand training and public/ILT & VILT training. On-sites for certain product lines
3. Instructor-led classes one off seats in a class and onsite training at customer location. In 2019 we continue to struggle filling regional locations of instructor-led deliveries. We'll probably have 3 total this year. Our customer base says they cannot take the time to commit to a 3-day class.
4. Self-paced
5. Public classroom due to holiday vacation season
6. Certification voucher sales
7. Public ILT down; Private ILT significantly down in EMEA, pulling WW number down. AMER/APAC flat ILT.
8. Certifications saw the biggest decline
9. Private training requests (either remote or onsite) have continued to decrease as more and more partners/customers are adjusting their schedules to take advantage of free training offered on a scheduled basis. Also, the same content is being offered on a self-serve basis but without certification. Partners/Customers are focusing more on developing the skills when needed.
10. 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
11. Public schedule classes in a classroom
12. Live classroom
13. US pharmaceutical supply chain software
14. career site administration and reporting

15. Live Webinars. They want them recorded and watch them later.
16. Public training
17. Basic, fundamental subjects
18. Public (open) enrollments - F2F training - continues to degrade; Learning Consulting is up and down
19. Instructor led training is decreasing, especially in our public classroom training. We ran fewer classroom trainings and continue to see higher cancellation rates despite sales continuing to grow.
20. Public classes in the traditional sense continue to show weak attendance.
21. Data Analyst (SQL)
22. None
23. Public & Private ILT
24. Firewall Basics
25. None.
26. Public Training
27. public and private classroom delivery

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

1. Implementation partners competing and taking the training business. Requirement for free training is keeping us from making up revenues that are declining from older products that the company is phasing out.
2. The product business unit releasing a free enablement platform that they are driving all customers to Lack of global leadership, selling global products with regional delivery- same problems this year but the free training is eating our lunch H
3. Same two as last time but our renewal rate is up; 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 a 50% renewal.
4. Scale
5. Hiring (45% attrition) - being able to find technical experienced staff; Certification - continued decline by partners
6. Needing to update courses on a quarterly basis; Margin reducing
7. Staff reduction in Q1; More difficult to fill public classes ILT
8. Content creation for the variety of customers and sales training for salesforce to understand how to sell training and certification. Enabling a channel to be able to offer public classes.
9. Content development funding to meet demands; Instructor resourcing
10. 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. I stated this last survey and this still remains as our biggest challenge. The methods and tools required to deliver training in this new environment are not being supported by the company. They want the change but don't want to do what it takes to make the change happen. Company Change - the Education department has been moved across the organization 3 times in <1 year. This has been very disruptive and stagnates (or slows) our ability to deliver, make progress, and plan as we are continually having to re-get company buy in.
11. Bandwidth and subscription churn
12. Resources!!!Lack of efficiencies in reporting for sales team.

13. Company transition from on prem to SaaS, so have had to examine and make changes to many pricing and delivery models
14. Developing a subscription model; transitioning from free content to fee-based training; Budget too tight to deliver required curriculum.
15. Learning about and implementing new features within existing curriculum in a timely manner; Not enough resources on the team; having to make do with much less
16. 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!)
17. Our current training infrastructure is not able to support the programs we run. Some of the revenue associated with private training is not easily tracked as education revenue.
18. Creating scalable infrastructure necessary to support learners on new software; Capacity planning and shifting resources to meet the demands of the changing business landscape
19. 1. Sales - we don't have a dedicated Education sales force2. Shifting our organizational mindset to "Digital Learning", and from traditional classroom delivery
20. New LMS launched on Aug 6th. Last 6 months have seen significant effort go into that project, at times to the expense of new content creation. Managing the political landscape and position of customer learning within the org as new exec management come into the company.
21. As Arbor Networks has been acquired by NETSCOUT, there is a wide division on what end customer-facing training should be chasing. Simple engagement v. actually learning something; Coupled w/the acquisition is a reduction in headcount (through attrition) and so harder to meet the output requirements for creating and delivering our programs.
22. Accelerating content development time; Decreasing sales
23. Lack of available talent for hiring instructors
24. Increased pressure on Free learning vs Fee based
25. Attach rate; Past the adoption phase, now is sustainment phase
26. updating eLearning and ILT classes around our SaaS product lines which change every two weeks.
27. Translation of material. Hiring of Instructors with appropriate languages for new countries.
28. New product released that has a different, lower revenue generation model for EDU and declining sales of legacy product

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

1. More companies are focused on private team training. Our partners that we support with free training are also taking our standard customer training.
2. SaaS companies continue to focus on retention and renewals. Customer education teams need to get very clear on the role they play here in order to stay relevant. Is the training for free or for fee? what's the customer journey? Are we teaching product feature and function or building a product enabled workforce? Are we teaching customer to get value out of their spend? Are their business problems being solved?
3. We are considering making all our foundational/entry level content free to the Administrators of our software. In Jan of 2019 we made 75% of our on-demand content freely available to the public. our revenue has decreased as expected since we made so much of our on-demand content available for no fee. We don't have enough data yet to say that the customers/prospects that are engaged in the free training are purchasing more licenses or more likely to renew, but we are hoping to be able to correlate that data yet this year.
4. Continuous growth
5. Digital badging is taking over the world!

6. ARR requirement for most of our training; Customers are not pushing very hard for localization so we're not translating our content.
7. Partners are willing to learn with more autonomous methods than customers.
8. Revenue is secondary for us and success is determined by product adoption and expansion. While we have been able to demonstrate increases in the number of learners, it's important to be able to demonstrate success at all levels. We have had success in reporting back things like our cost reduction projects, and we will hopefully start measuring impact better in future by comparing correlation of trained vs untrained customers on #support cases and customer spend on up/cross selling.
9. Personal point of view, there seems to be a growing body of work that caters to the "engage at all costs" that lacks the substance to truly make the customer successful. Customer Success managers need to be more ubiquitously with customer training to not only engage with the customer but also guide them through meaningful learning experiences.
10. Poor engagement on OnDemand; 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 on Lifetime Customer Value, Churn, Expansions, and so on, is challenging; Cloud is expanding rapidly
11. Generally steady, no major decline or growth