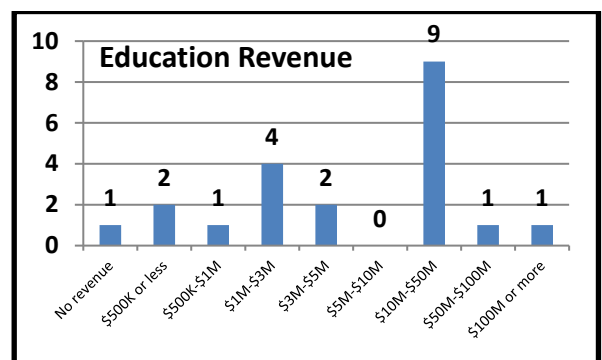
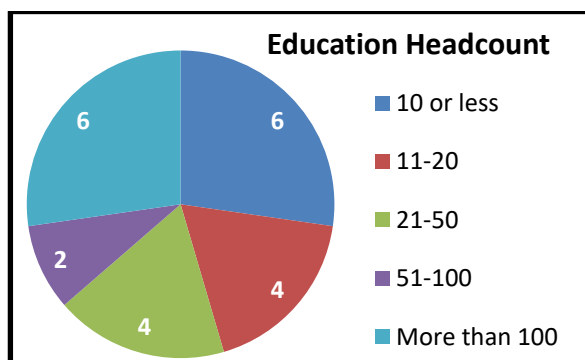
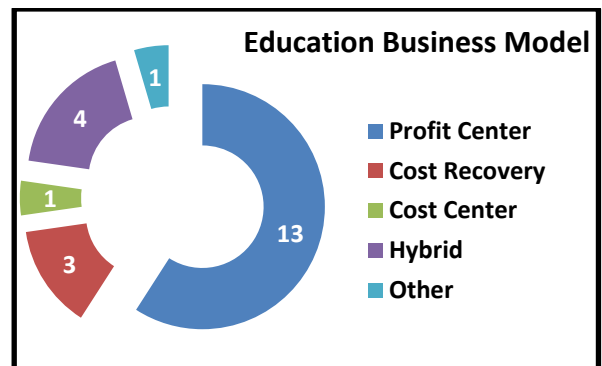
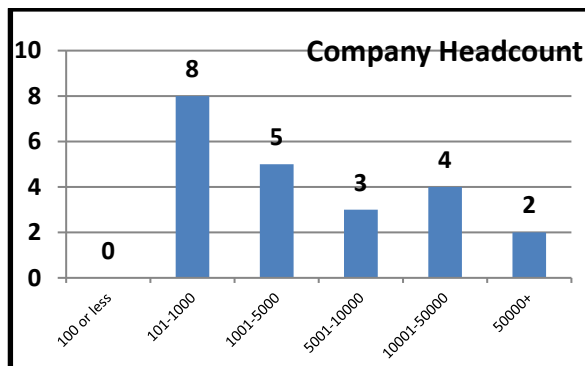
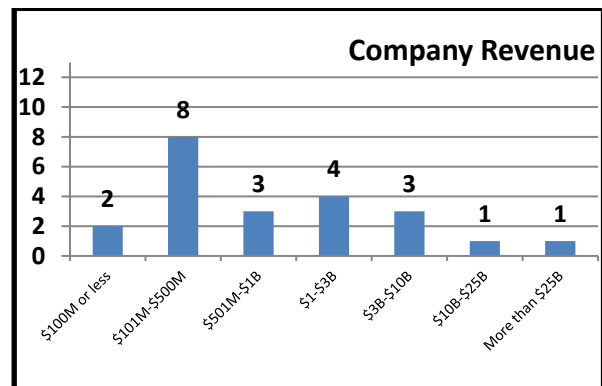
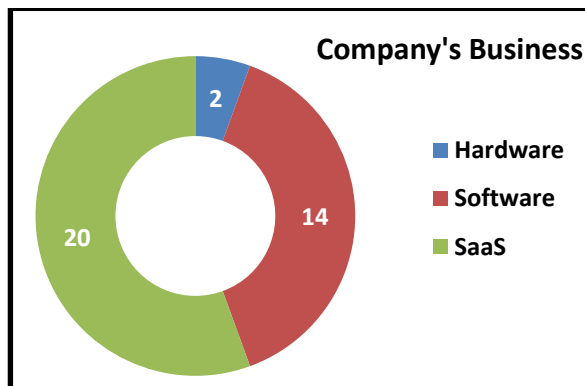




CEdMA Training Market Barometer 4th Quarter 2019 Actual

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 19 responses for global and 3 for North America so the combined 22 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 flat for 2019.

Operating profit is revenue minus all fixed and variable costs, excluding allocations, divided by revenue. The growth trend is just below flat in 2019, 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 6% for 2019.

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 negative -1% in 2019.

Public (scheduled) classes is revenue for ILT and VILT and the trend has dropped to negative 5% in 2019, 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 of negative 4% to 19Q4, 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 11% increase in 2019, having grown steadily from a 5% increase in 2013 and 9% in 2017. 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 2019, 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 in 2019 is showing negative -2%, having been as low as negative 4% for 2018. (But only 10 members reported revenue.)

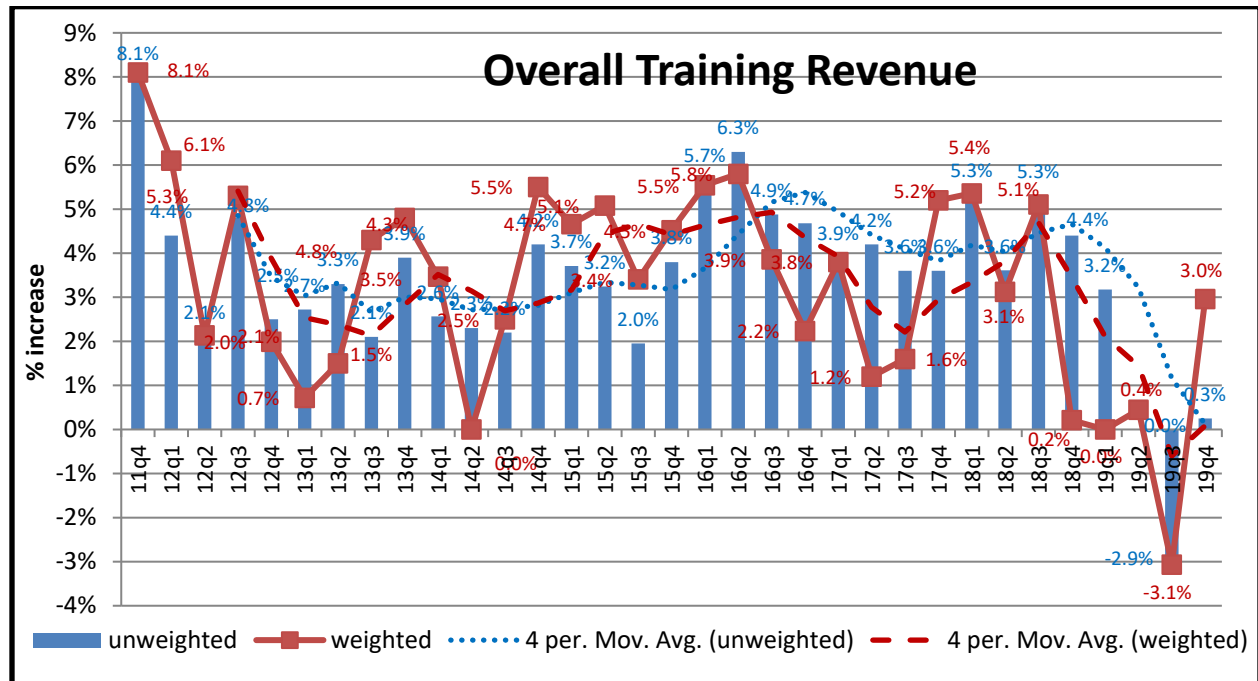
Learning Technologies is all revenue generated by learning tools, infrastructure, courseware and directly related training and learning consulting for these technologies. After showing negative 2% in 2016 and positive 2% in 2017, the trend is now negative 1% in 2019. (But only 3 members reported revenue.)

New Learning Modalities is all revenue for social learning, gamification, microlearning, mobile. 2016 showed the trendline at 7%, but it's now negative 3% in 2019, having been 5% in 2018. (But only 4 members reported revenue.)

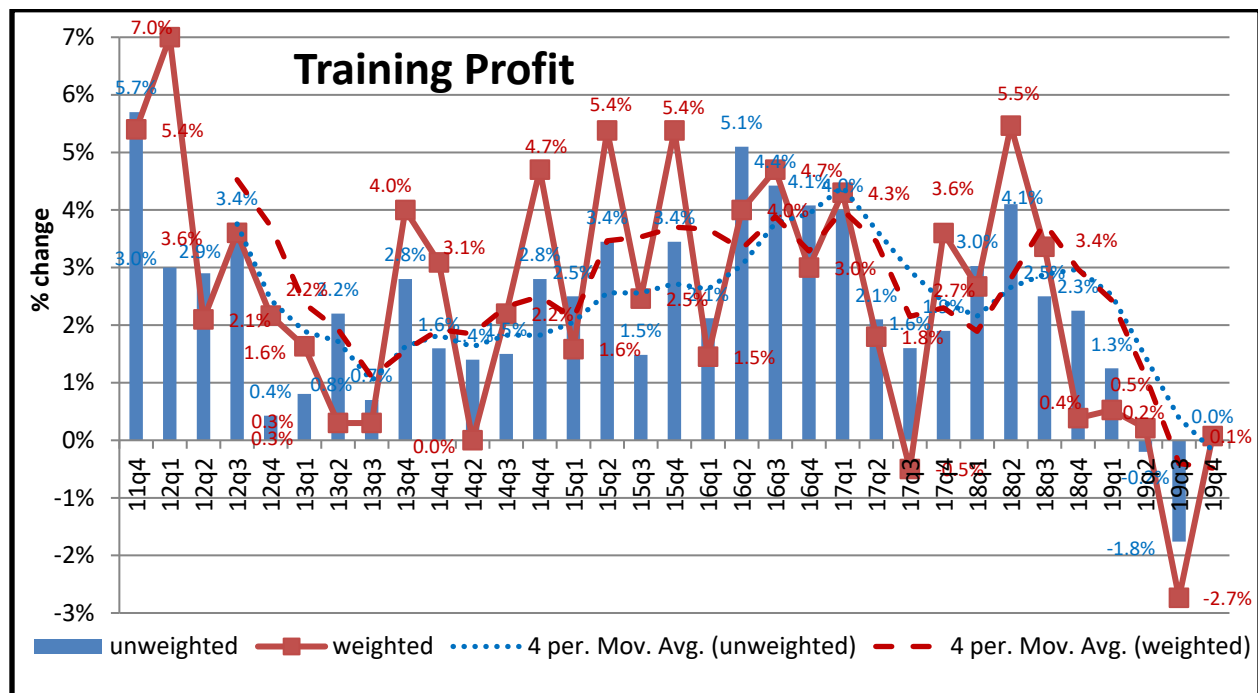
Subscriptions include all revenue from any of the above modalities. Subscription revenue has grown consistently 7% from 2017 and it's now 9-10% in 2019. 18 reported revenue.

Training Revenue and Profit

The unweighted total training **revenue** increase for 19Q4 (u=11, f=2, d=7) was 0.3%. The weighted total training **revenue** increase was 3.0%. The 4-period moving average is currently showing flat for both unweighted and weighted.

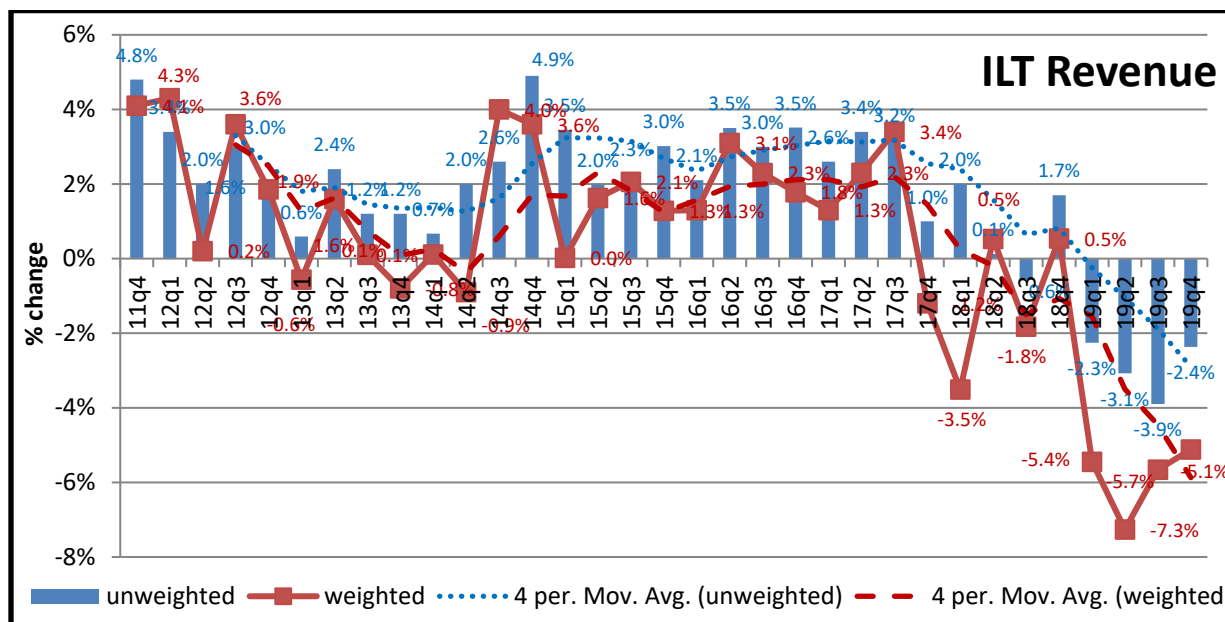


Training profit in 19Q4 (u=9, f=4, d=7) was flat for both unweighted and weighted. The training profit weighted trendline to 19Q4 is just under flat.



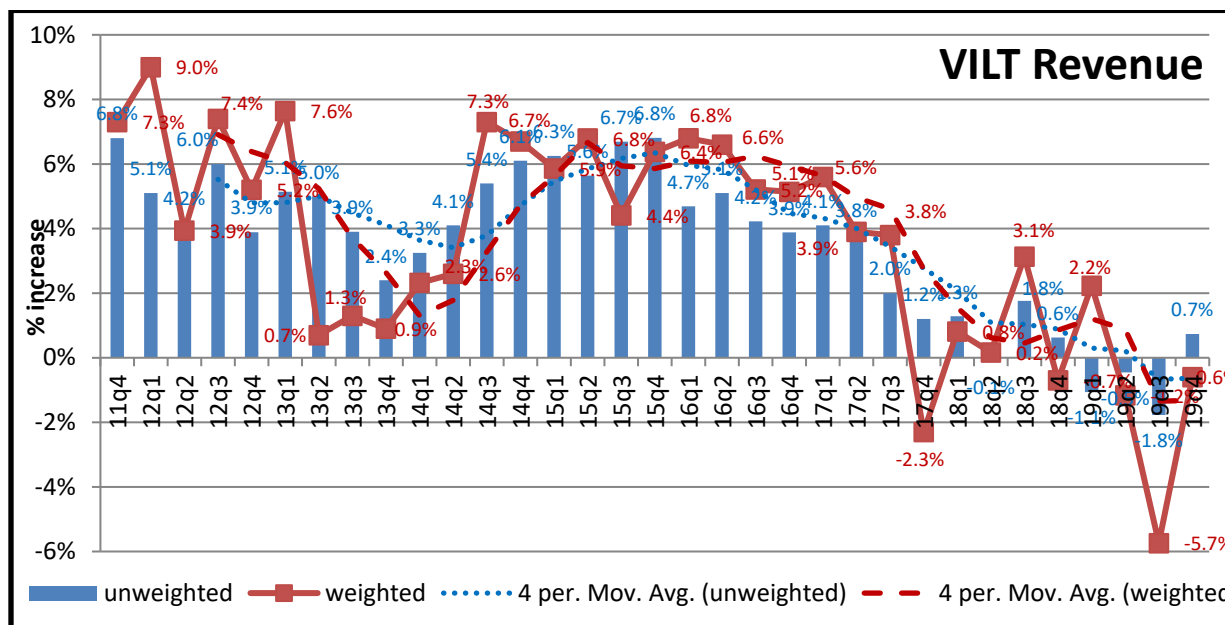
Live Instructor-led Training

The unweighted live classroom **revenue** decrease for 19Q4 (u=6, f=3, d=10) was -2.4% with weighted at -5.1%. The increase in **volume** was 0.4%. The weighted 4-period moving average is now negative 6%. This is a further downturn in ILT revenue.

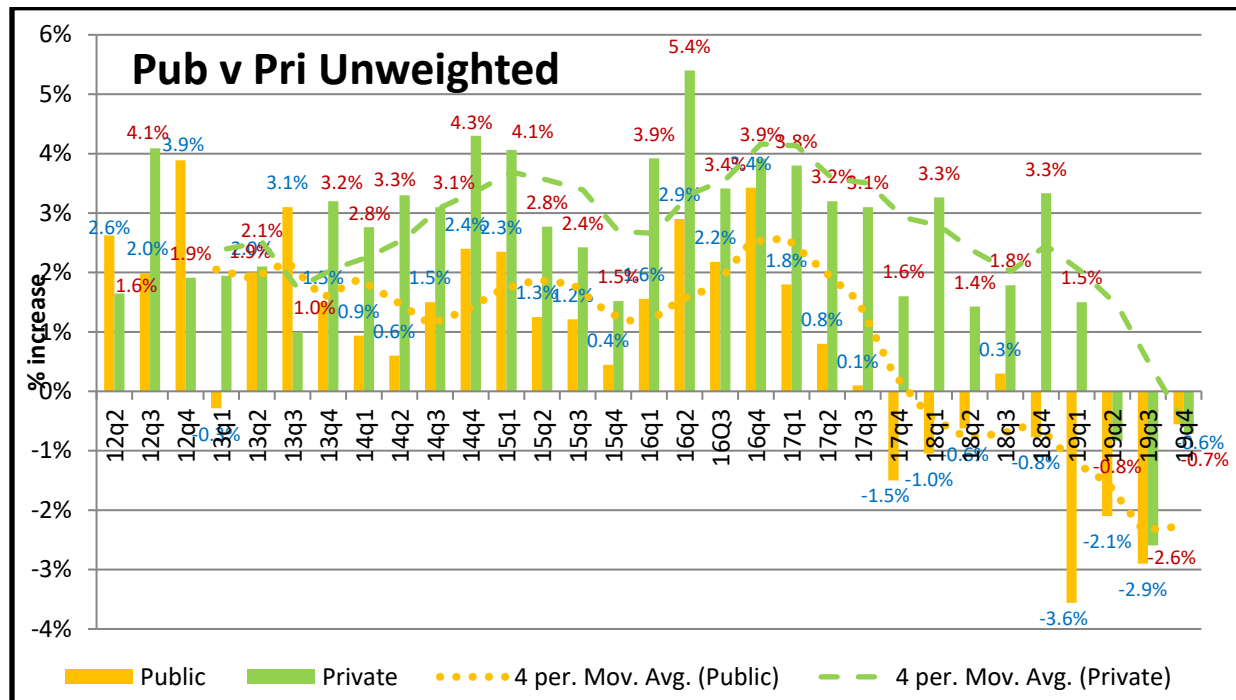


Virtual Instructor-led Training

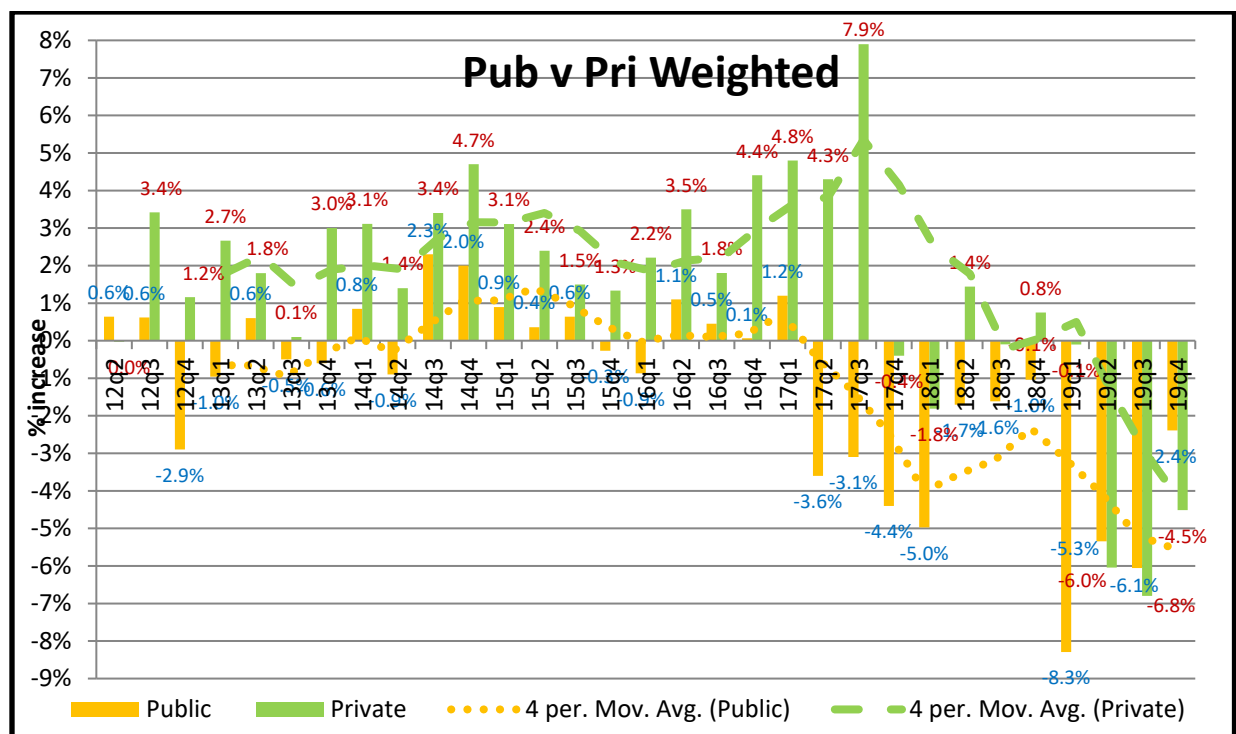
Virtual classroom also continuous trending downwards. The unweighted virtual classroom **revenue** increase for 19Q4 (u=7, f=4, d=6) was 0.7%, with the weighted **revenue** decrease at -0.6%. The decrease in **volume** was -0.3%. The 4-period moving average for weighted is now -1%, down from 3% in 2017 and 6% in 2015-16. Note that 16 reported positive revenue.



We include questions on public classes and private classes. Unweighted public **revenues** have decreased in 19Q4 by -0.6% and private decreased by -0.7%. The decrease in **volume** was -1.9% for public but an increase of 1.4% for private. The trendline for public has dropped to negative 2-3% and to negative 1% for private. (Note that public is u=6, f=4, d=8 and private u=10, f=3, d=8.)

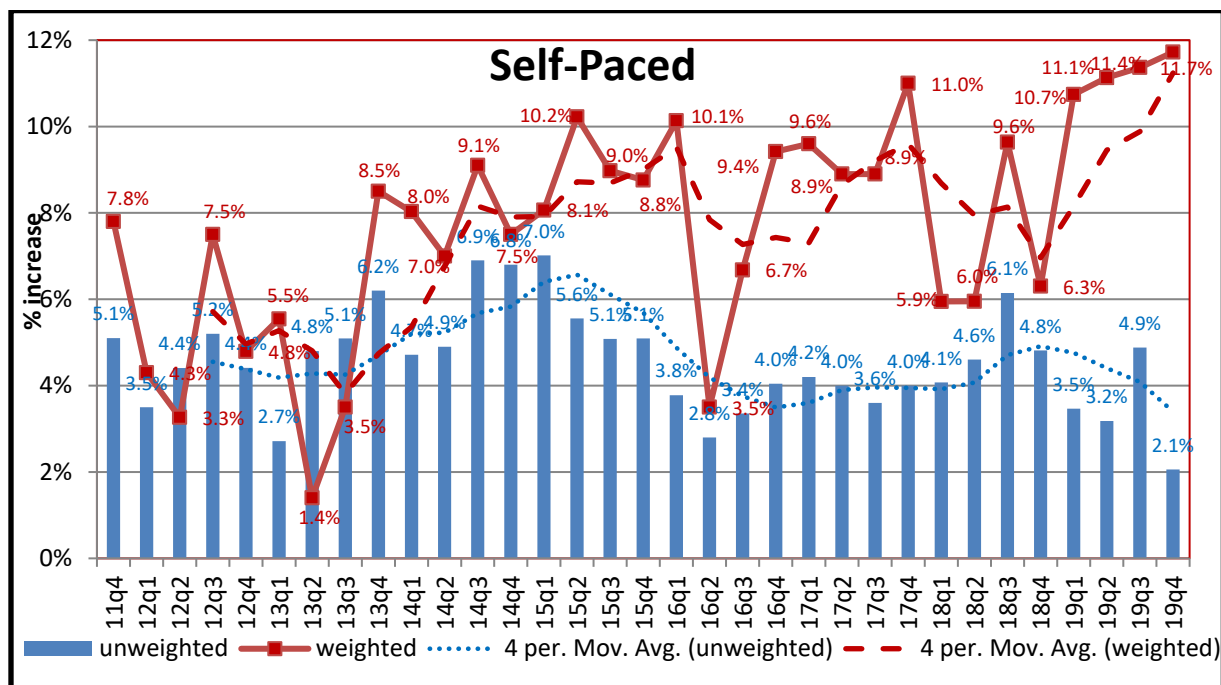


When weighting is considered, the changes are more dramatic. In 19Q4, public **revenue** has decreased by -2.4% and even private **revenue** decreased -4.5%. The 4-period moving average is negative 5% for public and negative 4% for private.



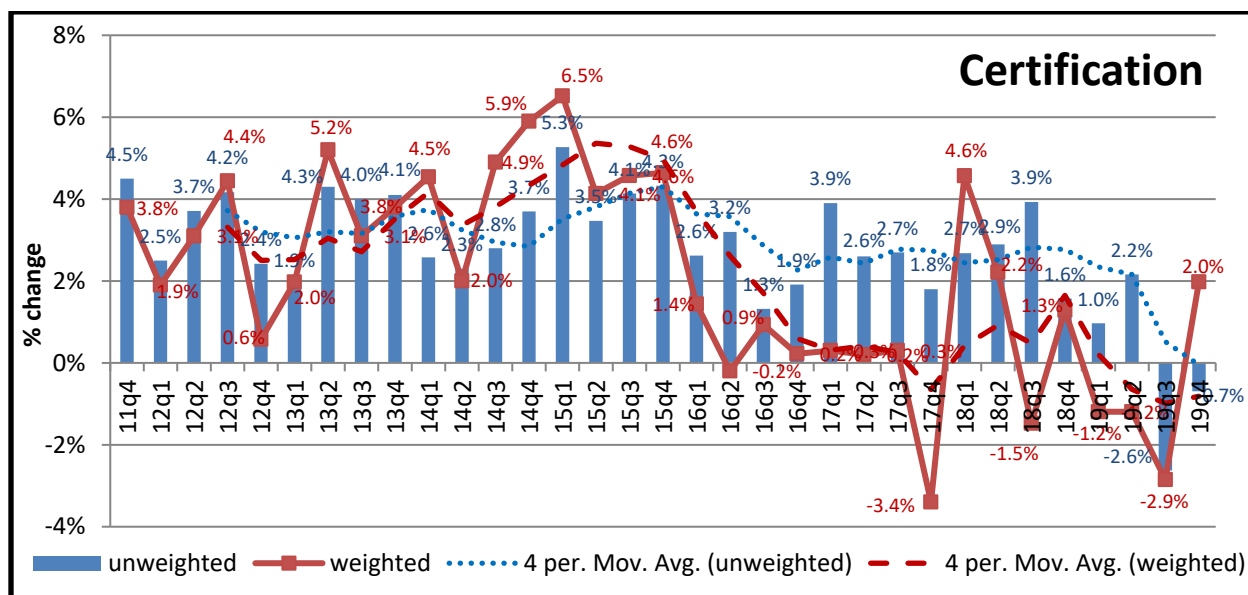
Self-Paced

The unweighted self-paced **revenue** increase in 19Q4 (u=9, f=5, d=3) was 2.1%. However, the weighted self-paced **revenue** increase was 11.7%. The increase in **volume** was 1.7%. The 4-period moving average shows 11% for weighted. Note that 12 reported positive revenue.



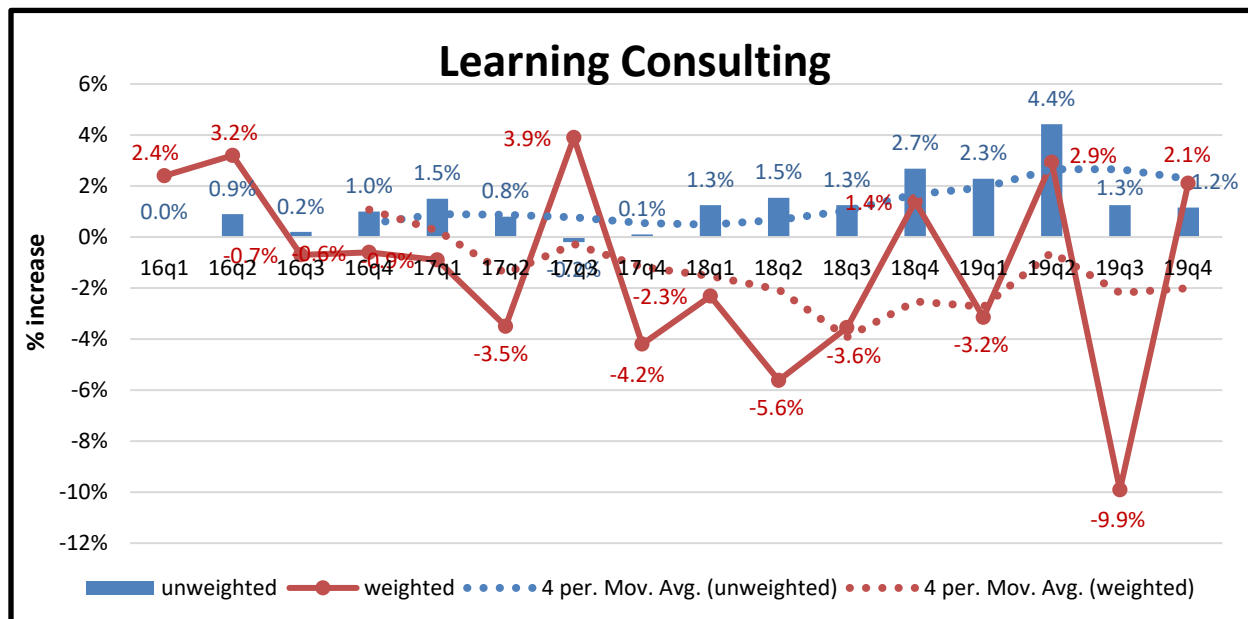
Certification

The unweighted certification **revenue** decrease for 19Q4 (u=4, f=7, d=9) was -0.7%, but the weighted certification **revenue** increase was 2.0%. The increase in **volume** was 0.1%. The weighted 4-period moving average is negative 1%. Note that 17 reported positive revenue.



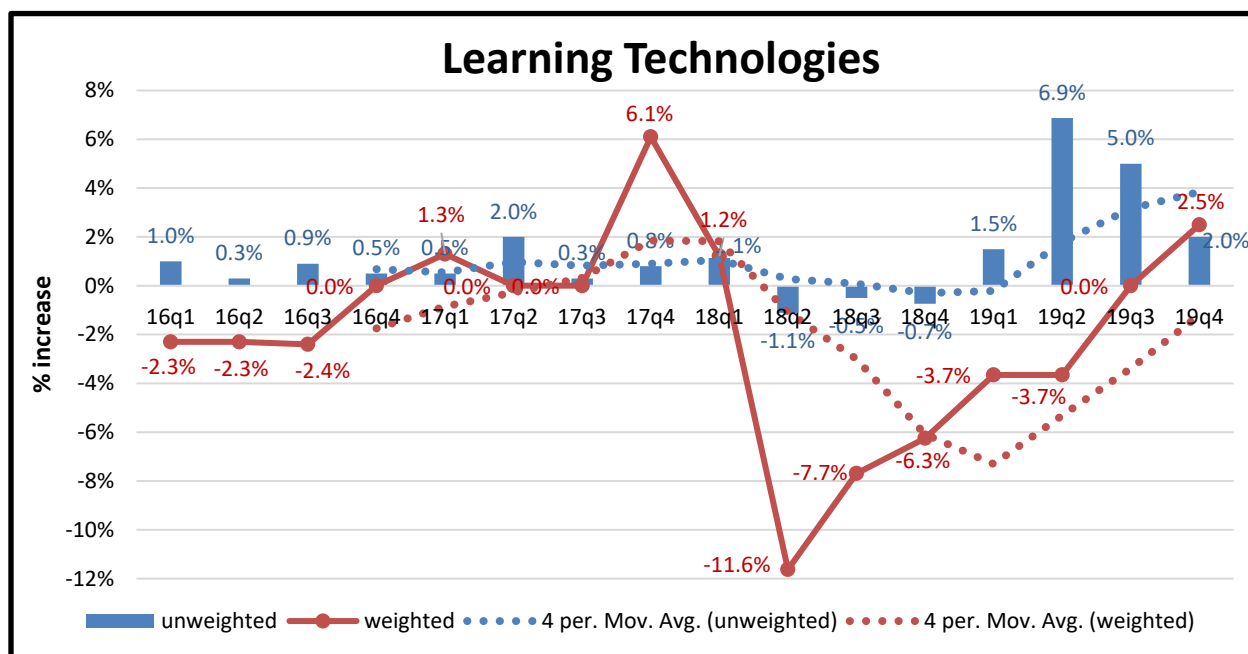
Learning Consulting

We now have four 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 2%. The decrease in **volume** was 0.2%. The **revenue** increases for 19Q4 (u=6, f=3, d=4) are 1.2% for unweighted and 2.1% when weighted. Note that 13 reported revenue.



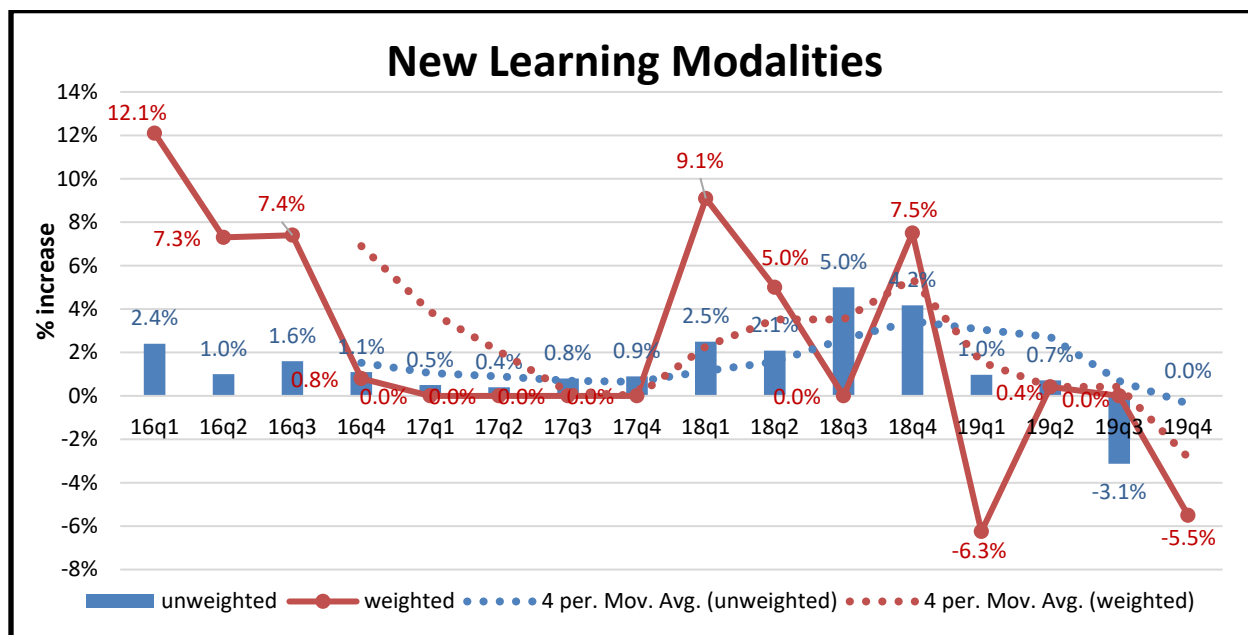
Learning Technologies

We also now have four years reporting this area. In that period, the unweighted scores have just started to climb, but the trendline for weighted scores now shows 1% decrease. The **revenue** increase for 19Q4 (u=4, f=1, d=0) was 2.0% for unweighted and 2.5% when weighted. Note that only 5 reported revenue.



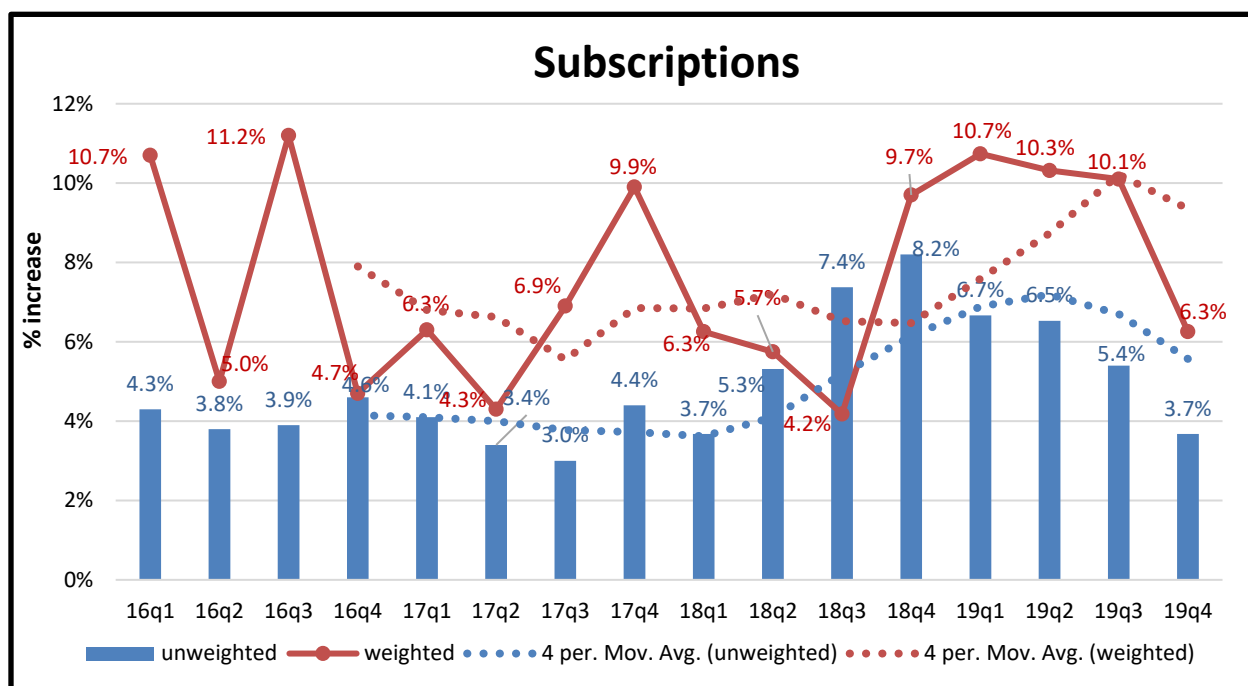
New Learning Modalities

We now have 16 quarterly reports. In that period, the trendline for unweighted scores has fallen to flat and weighted scores to -3%. The increase in **volume** was 1.8%. The **revenue** for 19Q4 (u=3, f=3, d=1) is flat for unweighted but -5.5% for weighted. Note that only 7 reported revenue.



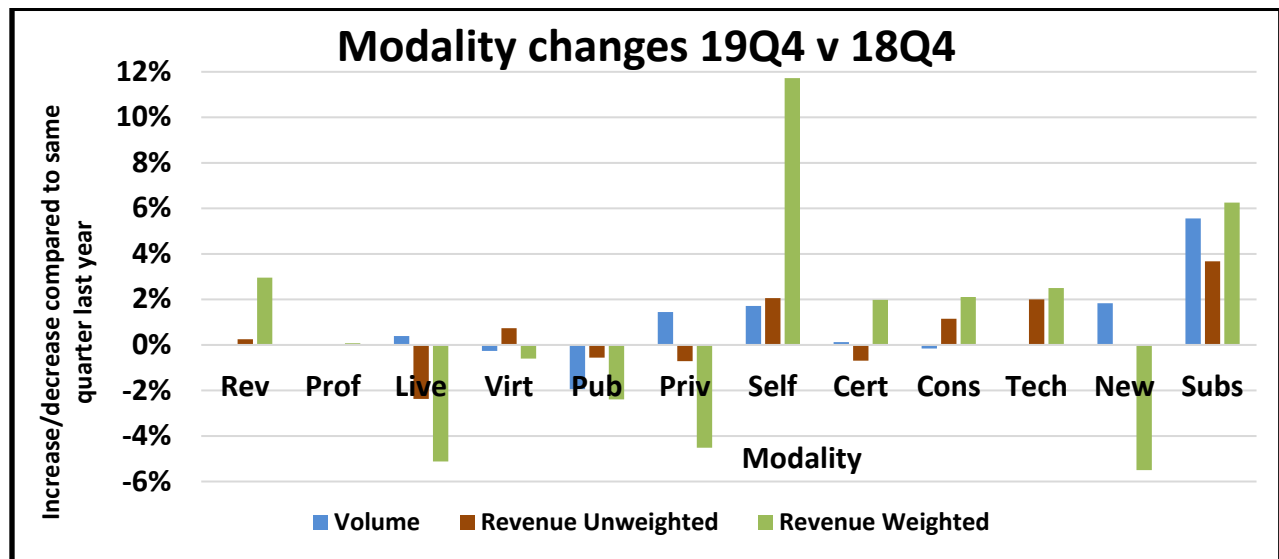
Subscriptions

We also have four years reporting this area. During 2019, unweighted scores show a 6% increase and weighted scores just under 10%. The **revenue** increases for 19Q4 (u=11, f=2, d=4) are 5.6% for unweighted and 3.7% for weighted. The increase in **volume** was 5.6%. Note that 17 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, volume averages will only be for unweighted input. Here's the comparison for 19Q4.



The significant revenue increases for 19q4 compared to 18q4 are overall revenue, self-paced and subscriptions. Live instructor-led including both public and private classes are significantly down. However, both private classes and New Technologies are down by revenue despite an increase in volume.

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

1. Subscriptions
2. Custom training with customers
3. Learning consulting and change management services
4. Overall the business has been down due to lack of support from regional leadership. The custom business was growing but a change in the Americas has caused a large decline. (No change in these statements year over year). There has been a slight pickup in custom learning in EMEA and APAC due to renewed focus but a decline in the Americas due to lack of focus.
5. 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.
6. Product Overview; Introductory
7. Virtual Classroom
8. Public (scheduled) Classes
9. Core technology Database (advance courses)
10. Administration and Reporting topics

11. Subscriptions are growing quickly, these are new for this year, we did not have subscriptions last year. These will help to drive our ILO and Assisted Self-Paced business.
12. Training and certification subscriptions for pharma supply chain software
13. Cloud Computing; Data Science
14. Subscription revenue
15. Subscription is now over 75% of total revenue
16. VILT
17. Private classes
18. Identity Governance and SDKs
19. Customized onsite training.
20. Cloud and Axon
21. Training Curriculum/kits purchased by Learning Partners - triggered by release of new versions aligned with product update.

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

1. Public Training
2. Certifications saw the biggest decline
3. Public and private classroom delivery on legacy product
4. Custom business, renewal of subscription business
5. 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.
6. End User Training
7. Public training, although our training business continues to decrease.
8. Private (one customer) Classes
9. Search, Analytics and Graph
10. Webinar recordings - general topics
11. Private training for pharma supply chain software
12. Data Analyst (SQL)
13. Partner certification
14. 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
15. Instructor Led
16. Public schedule classes in a classroom
17. PowerCenter
18. Public ILT down

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

1. Translation of material. The hiring of Instructors with appropriate languages for new countries.
2. 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.
3. New product released that has a different, lower revenue generation model for EDU and declining sales of legacy product

4. A change in leadership in some of the regions and lack of support for global training product roll out. The increase in free content from our Product Business Unit and their free learning offerings
5. 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.
6. Recruitment of SMEs to develop training content; Managing and maintaining legacy content
7. Limited license sales; our Sales organization believes that everyone is offering FREE training. Since we don't do this, they are finding alternative ways to deliver outside of us.
8. 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.
9. Lack of available talent for hiring instructors
10. 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
11. Low and stale backlog ; Signing/Sales growth
12. Adding value to justify subscription renewals-@ Not enough TAM --@ small numbers of learners at customer companies require certifications and Training
13. Accelerating content development time; Simplification of messaging to promote sales adoption
14. Global trade affecting manufacturing industry; quantity of attach rate of ILT (1 seat no matter deal size)
15. Bandwidth and subscription churn
16. Scale
17. Resources!!! Lack of efficiencies in reporting for sales team.
18. Needing to update courses on a quarterly basis
19. Resource allocation in a growing market. Getting online learning pricing right.
20. 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.
21. Challenging to fill EMEA public ILT courses; Some additional investment in Q4 allowed us to update old curriculum, to support a product release, which drive additional partner training kits sales.

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

1. The training business has finally come to an agreement with the product business unit on the free and fee journey, we have embedded the paid learning in to the learning journeys to create a better customer experience and hopefully drive some click through from free to paid learning.
2. 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.
3. Interest in on-demand training and subscriptions are increasing
4. It's imperative (already underway) that we change our business model. The 1987 approach no longer works.
5. Generally steady, no major decline or growth; Most companies like ours are also providing "informal" education such as Developer Days. Meetups and professional forums are covering

reasonable intro to intermediate training. Offering more informal education delivered by customer/developer advocates.

6. 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 expanding rapidly
7. Continuous growth
8. Digital badging is taking over the world!
9. More companies are focused on private team training. Our partners that we support with free training are also taking our standard customer training.
10. New VP of Services, who I report to, has supported a review of how Avid looks at the Learning Services business. After presentations to CEO/CFO, there is now acceptance we are not funded for success and 5 years of cut backs have left us struggling to create content for new products as well as update old learning content. We now have agreement from CEO/CFO to fund a 3 year transformation of the business to move learning online and add subscription options.