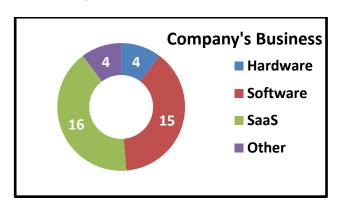
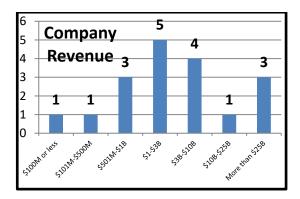
Computer Education Management Association Europe

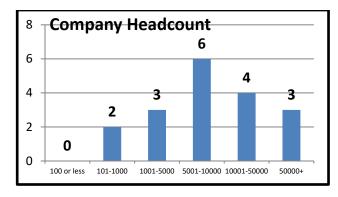
CEdMA Europe Market Barometer 4th Quarter 2019

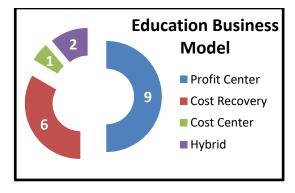
Introduction

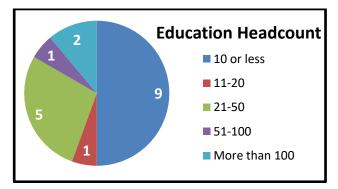
This report is compiled by CEdMA Europe for its members from input for their EMEA businesses. It is based around a series of absolute growth or decline percentages in the range +- 12.5%. Revenue refers to training services delivered in the quarter and not future bookings. Note that in this report, u/f/d is the number of members reporting up/flat/down, respectively. This report for 19q4 actuals is based on input from 18 companies.

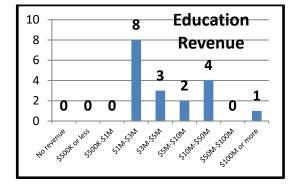












Changes to the Barometer

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 (but some about volumes added back in 18q2)
- 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.

Total Revenue is defined as all recognized revenue. Having been down to negative 2% in 2014, the trend recovered to positive 3% increase in 2016, and is now up to positive 4% to 19q4.

Operating Profit is revenue minus all fixed and variable costs, excluding allocations, divided by revenue. The trend has recovered from a low of negative 2% during 2013 to a 3% increase in 2017-18 and is now holding at positive 2% to 19q4.

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, showed a 2% decrease in 2017, was flat in 2017-18 but is now back to negative 3-4% to 19q4.

Virtual Classroom (VILT) is all revenue for instructor-led training via the web, with or without virtual labs. The trend dropped from 6% during 2013 to 1% in 2014-15 but has risen steadily to 8% YoY.

Public (scheduled) classes is revenue for ILT and VILT and the trendline now shows negative 3% to 19q4, having been flat in 2018.

Private (one-customer) classes is revenue for ILT and VILT, and was showing 4% in 2016, 5% in 2018-19 but now is back to flat having had two bad quarters.

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 11-12% to 19q4 having been as low as negative 4% during 2013-14.

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 trend is now 1% to 19q4, 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 the trend was flat for 2016, it dipped to negative -3% in 2017 but is now showing -1% during 2019. (But only 7 members reported positive revenue.)

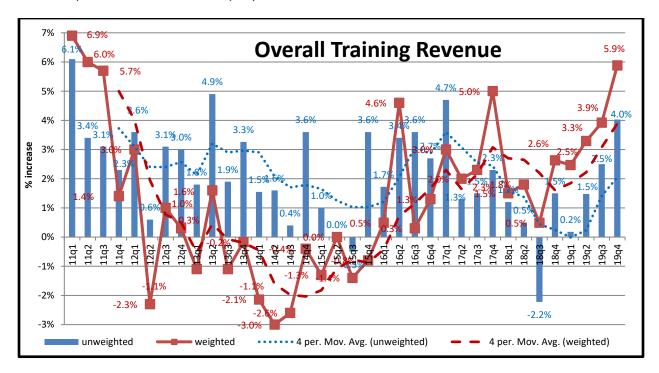
Learning Technologies is all revenue generated by learning tools, infrastructure, courseware and directly related training and learning consulting for these technologies. Having been 4% in 2017, the trend is now 2% to 19q4. (But only 4 members reported positive revenue.)

New Learning Modalities is all revenue for social learning, gamification, microlearning, mobile. The trend of 8% increase across 2016 has not been maintained but has risen to 3% to 19q4 having been 1% during 2018-19. (But only 3 members reported positive revenue.)

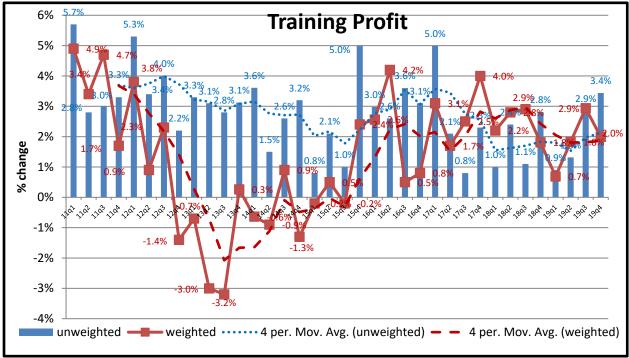
Subscriptions include all revenue from any of the above modalities included in subscriptions. With many companies starting in 2015/16, the increase was 8% over 2016, 3% over 2017, but is now 11% to 19q4.

Training Revenue and Profit

The unweighted total training **revenue** increase was a 4.0% in 19q4 (u=11, f=3, d=4). When considering the weighted numbers, it was 5.9%. However, the weighted trendline shows an increase of 4% over the last four quarters when size of company is considered.

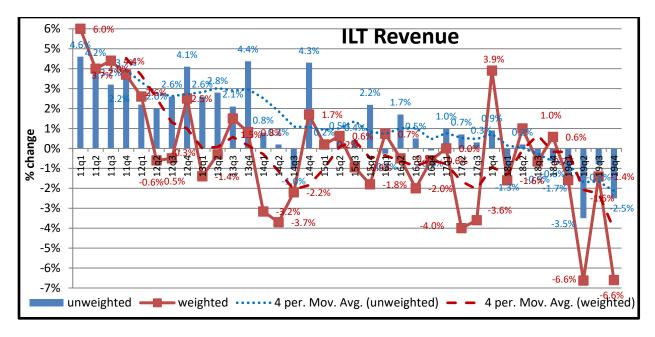


The unweighted total training profit grew 3.4% in 19q4 (u=6, f=6, d=4). And, with the weighted numbers, there was also an increase of 2.0%. The weighted trendline shows an ongoing profit increase of 2% over the last four quarters when size of company is considered.



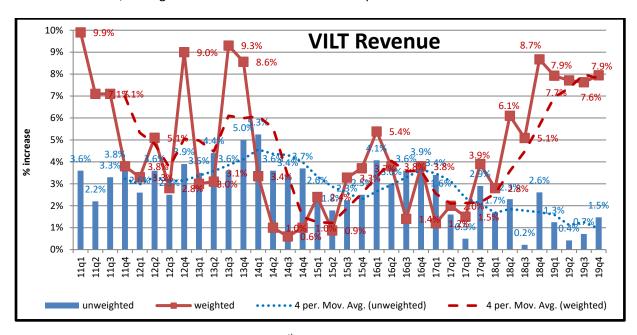
Live Instructor-led Training

This chart below suggests that ILT **revenue** for the larger companies has been the main cause of lower overall training revenue increases. The unweighted 19q4 **revenue** decrease was -2.5% (u=6, f=2, d=9) but the weighted number a decrease of -6.6%. But the increase in **volume** was 0.7%. The weighted trendline shows ILT revenue over the last four quarters decreasing by -4%.

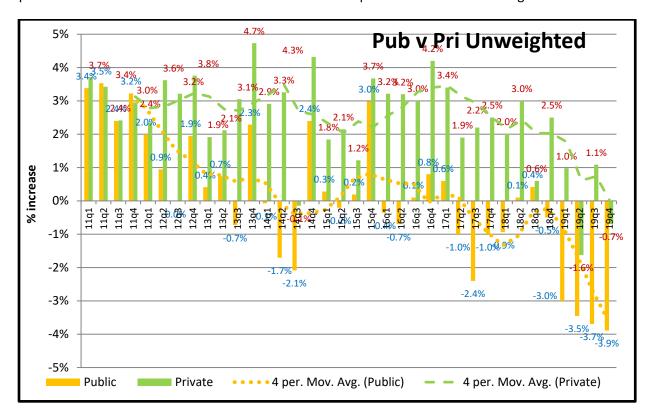


Virtual Instructor-led Training

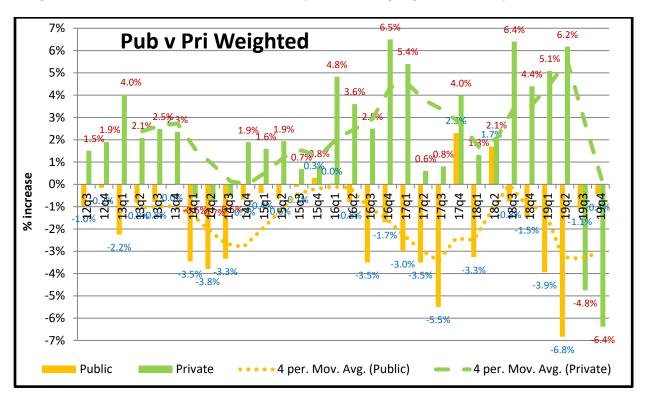
On the other hand, the VILT increase fell badly in 2014 but recovered. The unweighted 19q4 **revenue** increase is 1.5% (u=9, f=3, d=5) but the weighted increase is 7.9%. The increase in **volume** was 0.8%. The weighted trendline shows an ongoing VILT increase of 8% when size of VILT revenue is considered, but it was 3-4% in 2016, having been 1% in 2014. 16 members reported revenue.



We are now asking you to forecast both public (u=4, f=2, d=12) and private (u=8, f=3, d=7) classes and have enough history to show that private classes show **revenue** is flat over the last four quarters, whereas public classes are decreasing 3-4%. **Volumes** decreased 1.9% for public but increased 2.8% for private. Public classes decreased 3-4% over the last four quarters. This shows unweighted values.

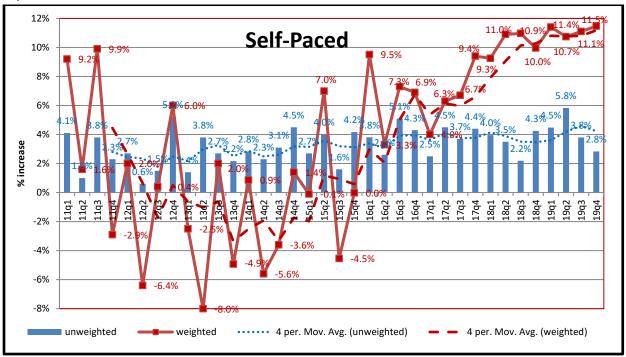


Weighted values have the revenue trendline for public showing negative 3% with private flat.



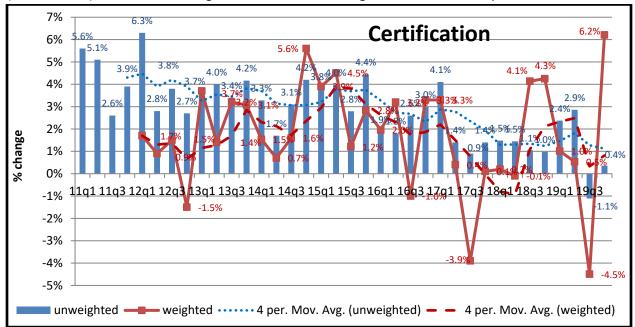
Self-Paced

The results for 19q4 (u=8, f=4, d=3) were 2.8% increase unweighted and 11.5% increase weighted. The increase in **volume** was also 2.8%. This shows how larger companies can have a significant effect on these averages. The 4-period moving average shows an 11-12% increase for weighted. 14 members reported revenue.



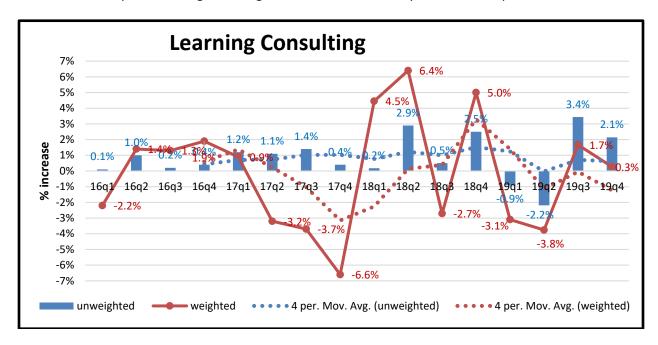
Certification

Up to 2015, certification reported 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. Bit's now climbing again. The increase in **volume** was 1.9%. The **revenue** increases for 19q4 (u=4, f=6, d=4) are 04% for unweighted and 6.2% when weighted. 14 members reported revenue.



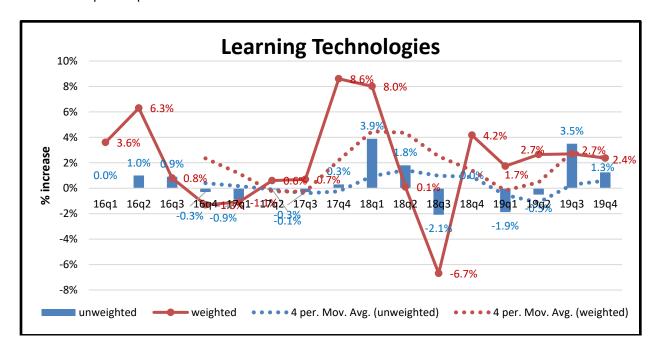
Learning Consulting

We now have four years reporting this area. In that period, the unweighted scores have largely remained flat. However, weighted scores have moved dramatically. The **revenue** increases for 19q4 (u=4, f=1, d=2) are 2.1% for unweighted and 0.3% when weighted. The increase in **volume** was 1.1%. The current four-period average for weighted is 1% decrease. Only 7 members reported revenue.



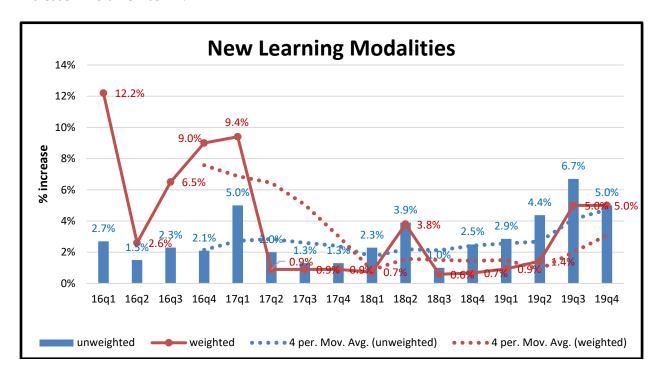
Learning Technologies

We also now four years reporting this area. In that period, the unweighted scores have recently showed volatility, but weighted scores even more so. The **revenue** increase for 19q4 (u=3, f=0, d=1) is 1.3% for unweighted and a 2.4% increase when weighted. The trendline for weighted is just above 2%. Only 4 members reported positive revenue.



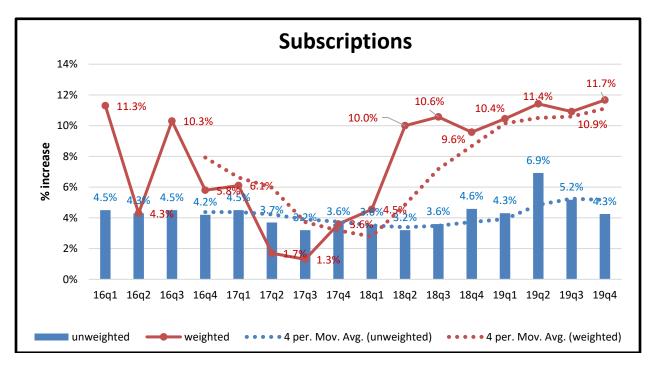
New Learning Modalities

The unweighted trendline is 5%, while the weighted trendline shows 3%. The **revenue** increase for 19q4 (u=2, f=1, d=0) is 5.0% for unweighted and weighted. 3 members reported positive revenue. The increase in **volume** was 2.1%.



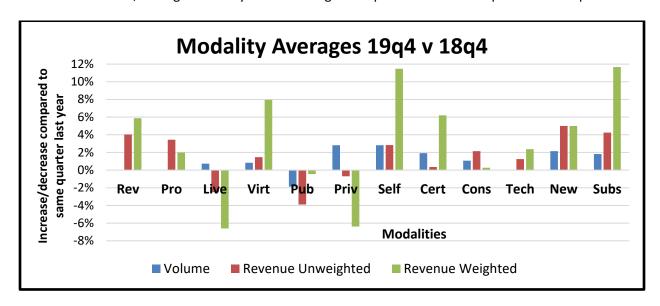
Subscriptions

The unweighted trendline is 5% whereas the weighted trendline is now showing 11% increase. The **revenue** increases for 19q4 (u=7, f=7, d=0) are 4.8% for unweighted and 10.9% when weighted. The increase in **volume** was 4.3%. 14 members reported positive 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 19q4.



The significant revenue increases for 19q4 compared to 18q4 are overall revenue, virtual instructor-led, self-paced and subscriptions. Live instructor-led is significantly decreased. Private classes are significantly down by revenue despite an increase in volume.

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

- 1. Subscriptions
- 2. Private classes
- 3. Partner Enablement
- 4. Demand for private courses are still increasing this now represents 70% of our business
- 5. Self-Paced Learning Labs
- 6. Private classes
- 7. Learning consulting
- 8. None
- 9. On-demand and self-paced labs.
- 10. Digital Learning
- 11. Identity Governance and SDKs
- 12. More Analytics and equal Core Storage
- 13. AI
- 14. Hyper converged
- 15. Commerce and Marketing Cloud
- 16. Companion software has increased (Self training software)
- 17. Subscriptions new product offering replacing existing business

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

- 1. Public courses face to face, in general ILT but also some self-paced
- 2. Certification
- 3. Live Virtual Classroom
- 4. Scheduled courses are still struggling although so far this year (2020) this has improved.
- 5. Virtual Classroom
- 6. Virtual classes
- 7. Live classes
- 8. Public Schedule classes
- 9. Not applicable to our business
- 10. Direct onsite Classroom Training Strategic decision.
- 11. None
- 12. High end storage
- 13. Classes delivery has decreased
- 14. Public training on old products

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

- 1. Decreasing overall volume of students; free training offers
- 2. Extreme difficulties with hosting of certification system; Curriculum development coming up to speed on new products
- 3. Resourcing for multiple language requirements for resources and content.
- 4. Customers wanting more bespoke approaches to training but not prepared to pay for the effort required. Resourcing requests
- 5. Dealing with customer enquiries and bookings with a very small Operations team.
- 6. Low headcount means we can only really cover operational tasks. We no longer have in house trainers all delivery is done by partners.
- Self-paced vs ILT; General weakness on classes with no clear picture on the reasons (competition, product maturity, DIY, and so on)
- 8. Loss of local control to Northern Europe structure; Customer Brexit fears putting a restraint on spend
- 9. Attracting the right calibre of authorised training partners and scaling the business (depth and breadth)
- 10. Backlog and development for acquisitions
- 11. Moving to a faster development model
- 12. Sales team still not selling enough training or trying to give it away....specially now during Covid-19
- 13. Completing Train-the-Trainer programs for ATPs; Supporting growing demand for shorter custom courses
- 14. Expansion of offerings to include 3rd party courses. What is in and what is out
- 15. Driving active programs to not just train but also get job placements
- 16. Define new training experiences; Build a real Certification plan
- 17. Languages; Resourcing due to long term absences and lack of partner availability

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

- 1. Corona Virus beginning to impact travel policies will likely lead to stronger adoption of virtual training, particularly in APAC.
- 2. The market is moving away from P&L as a focus. We are beginning to outsource the training function
- 3. We are in the process of transforming our training offerings into a subscription model
- 4. We are a hyper growth division growing faster than the overall organisation.
- 5. Now running a pure partner EDU model.
- 6. Digital badging is taking over!
- 7. Due to COVID-19 we have moved all ILT courses to VILT until Easter for now....