



How Long Does it Take to Create Learning?

**A Chapman Alliance, Research Study
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Abstract: Several years ago, I published some learning development metrics from several different studies that included ratios for how long it takes to create different types of learning. The information has been widely used and appears frequently throughout the Blogosphere. Recently, we have been receiving many requests to update this data, so Chapman Alliance created a survey to collect usable metrics that will help you benchmark your own learning development times. This time, all of the results were collected from a single audience (249 completed surveys) across several learning formats including instructor-led training (ILT), Level 1 e-Learning (Basic), Level 2 e-learning (Interactive), Level 3 e-learning (Advanced), and information about blended learning. The results are contained in this deck.

Now, the good news... You are welcome to share this research with anyone you'd like. Because we feel that this information is so important to the industry, we have released it under Creative Commons, meaning that you can share the whole deck or pull-out slides/charts and add them to your presentations, white papers, conference presentations, etc. The only restrictions are (1) you must ALWAYS list the source of information as "Chapman Alliance" and (2) you are NOT allowed to sell the results without written permission from Chapman Alliance. That's it. Enjoy!

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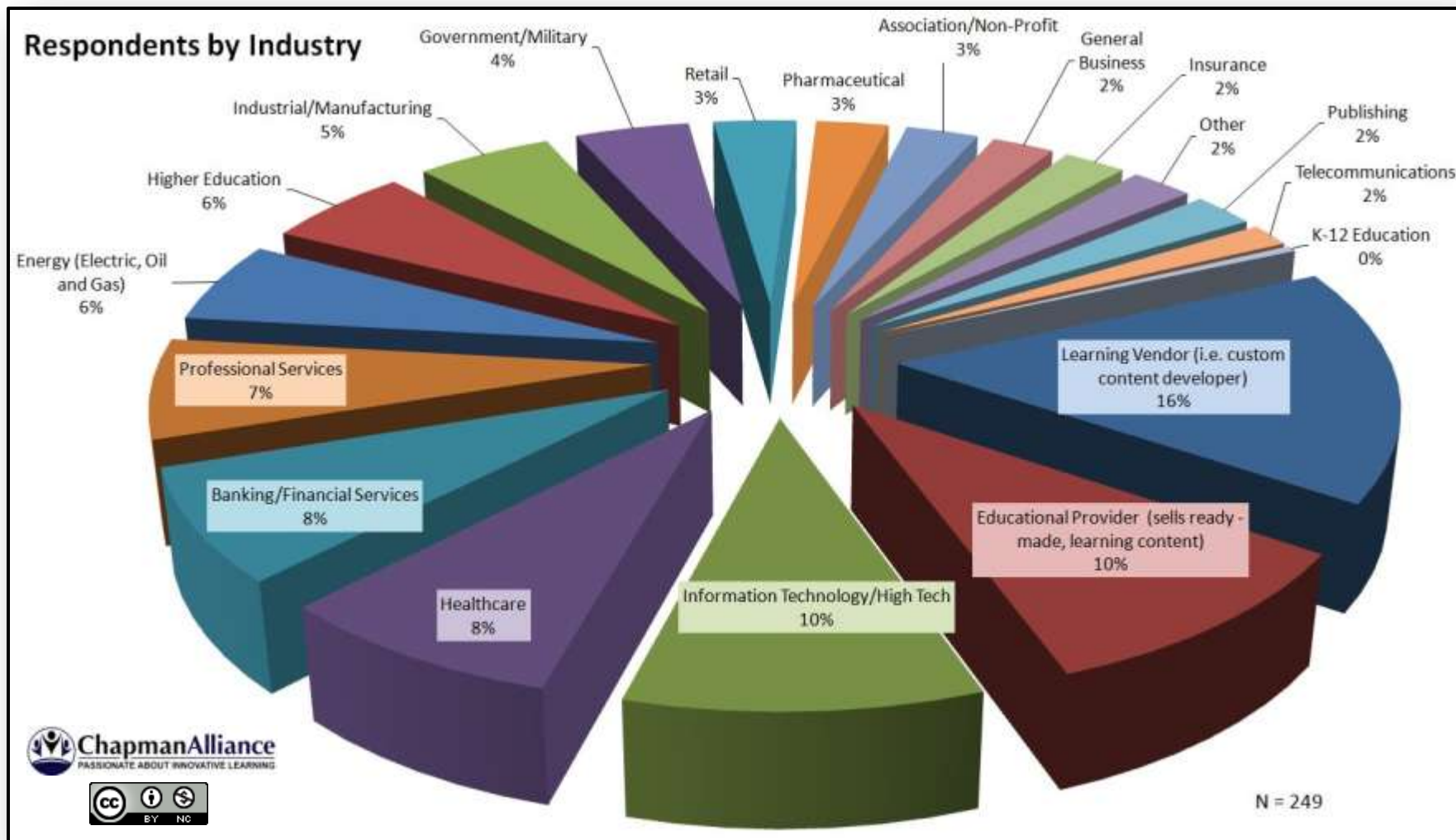


Survey Demographics

Thanks to all of you who took time to complete the survey!

If you would like to participate in future research surveys from Chapman Alliance, please join our list at

www.chapmanalliance.com/join-our-mailing-list



The data contained in this research was collected from **249** organizations, representing **3,947** learning development professionals, who have created learning content (ILT and eLearning) that is consumed by **19,875,946** Learners.

Instructor-Led Training (ILT)

Development Benchmark



Development of Instructor-Led Training (ILT)

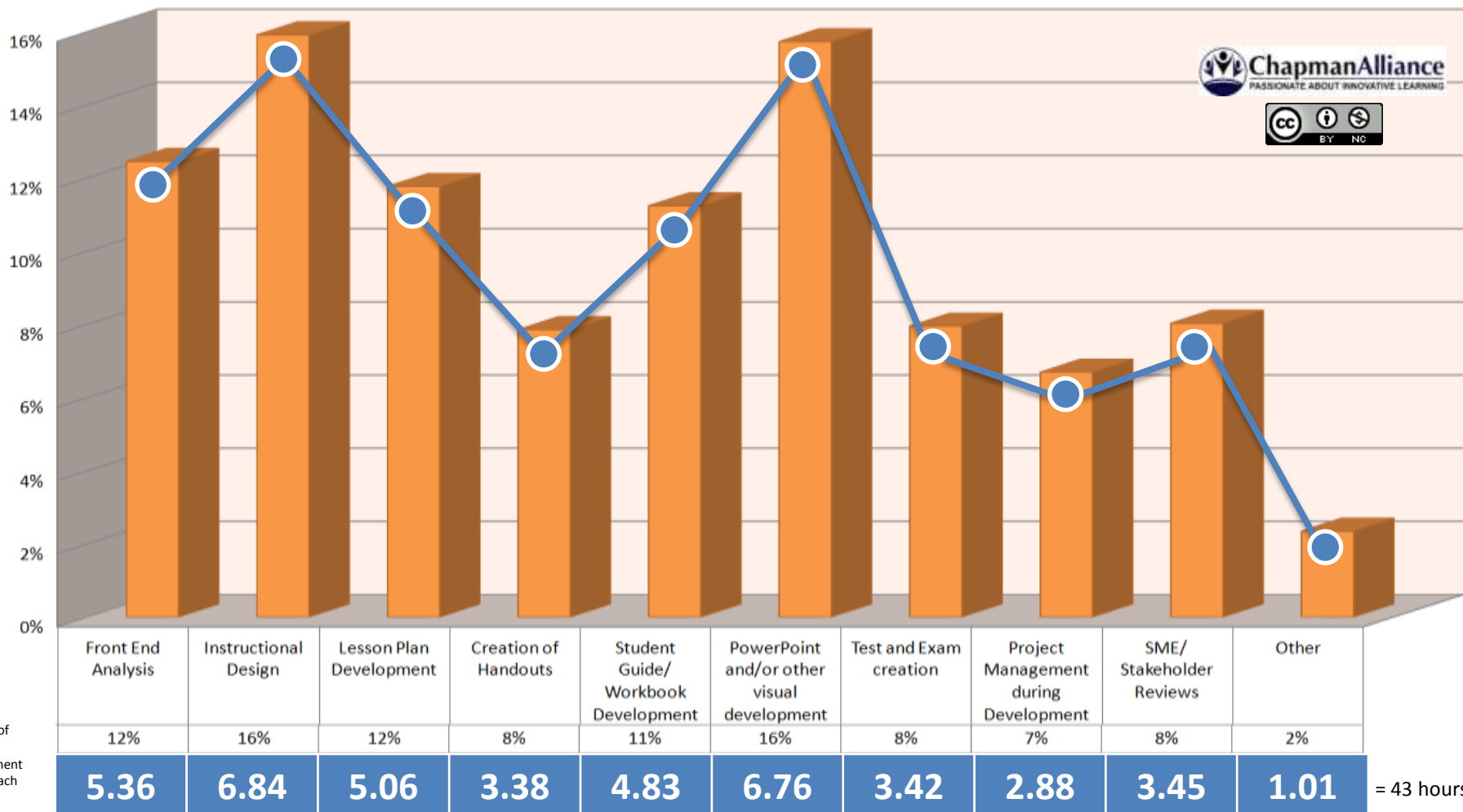
Overall Times and Ranges



Development of Instructor-Led Training (ILT)

Itemized Development Tasks – How much time is spent in each area through the development process?

Snapshot: Average time allocation by task and time spent (all respondents)



Based on average of 43 development hours, per finished hour of ILT

NOTE: Times reflect time spent by all members of the development team including: instructional designers, writers, subject matter experts (SME), graphic artists, project managers, etc.

Development of Instructor-Led Training (ILT)

How much are organizations spending, on average, per-finished-hour, to create instructor-led training (internally)?



\$5,934



We asked respondents:
List (if known) your
average, internal cost for
creating 1 finished hour
of ILT.

The cost shown is the average

Development of Instructor-Led Training (ILT)

Combining Average Time and Average Cost to Estimate Development Costs



<u>Tasks</u>	% of time spent on each task	Time spent on each task (per finished hour)	1-hour ILT Course	5-hour ILT Course	10 hour ILT Course
Front End Analysis	12%	5.36	\$ 739	\$ 3,695	\$ 7,391
Instructional Design	16%	6.84	\$ 944	\$ 4,722	\$ 9,444
Lesson Plan Development	12%	5.06	\$ 698	\$ 3,492	\$ 6,985
Creation of Handouts	8%	3.38	\$ 466	\$ 2,331	\$ 4,662
Student Guide/ Workbook Development	11%	4.83	\$ 667	\$ 3,336	\$ 6,671
PowerPoint and/or other visual development	16%	6.76	\$ 933	\$ 4,667	\$ 9,335
Test and Exam creation	8%	3.42	\$ 472	\$ 2,360	\$ 4,720
Project Management during Development	7%	2.88	\$ 397	\$ 1,987	\$ 3,973
SME/ Stakeholder Reviews	8%	3.45	\$ 477	\$ 2,384	\$ 4,768
Other	2%	1.01	\$ 139	\$ 697	\$ 1,395
Totals	100%	43 *	\$ 5,934 **	\$ 29,672	\$ 59,345

Variables:

* Average time of development per finished hour of ILT: **43**

** Average cost of development for 1 finished hour of ILT content: **\$5,934**



NOTE: The numbers above assume that all tasks are repeated for each hour of instruction. The study did not explore the efficiency and reduction of time for longer courses by task.

Level 1 - eLearning

Development Benchmark



Development of Level 1 - eLearning

How is Level 1 eLearning Defined?

The following definitions were used to collect survey data...

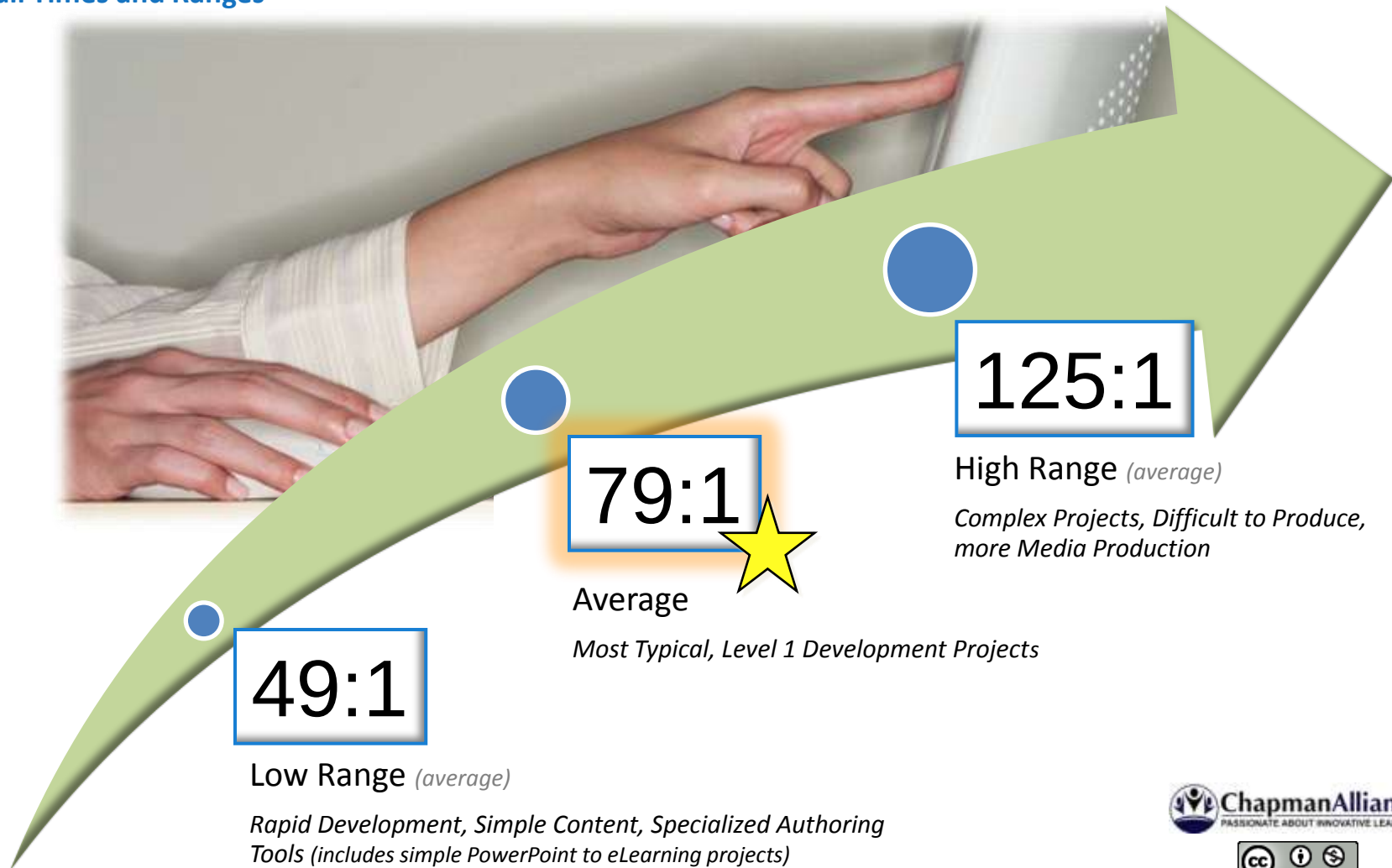


Level	Definition
Level 1 eLearning (Basic)	Content pages, text, graphics, perhaps simple audio, perhaps simple video, test questions. NOTE: PowerPoint-to-eLearning often falls into this category. Basically pages with assessment.
Level 2 eLearning (Interactive)	Level 1 plus 25% (or more) interactive exercises (allowing learners to perform virtual "try it" exercises), liberal use of multimedia (audio, video, animations)
Level 3 eLearning (Advanced)	Highly interactive, possibly simulation or serious game based, use of avatars, custom interactions, award winning caliber courseware

VERY IMPORTANT: It is important to understand that these definitions were written to be relatively broad **by design**. Having conducted similar surveys for many years, we've found that defining the exact framework of each level makes it virtually impossible for survey respondents to reply (unless their courses just happen to match the definition completely). By allowing for some interpretation, we have found that these guidelines yield the desired results, especially since respondents are also allowed to list low range, average, and high range based on further characteristics of learning content development.

Development of Level 1 - eLearning

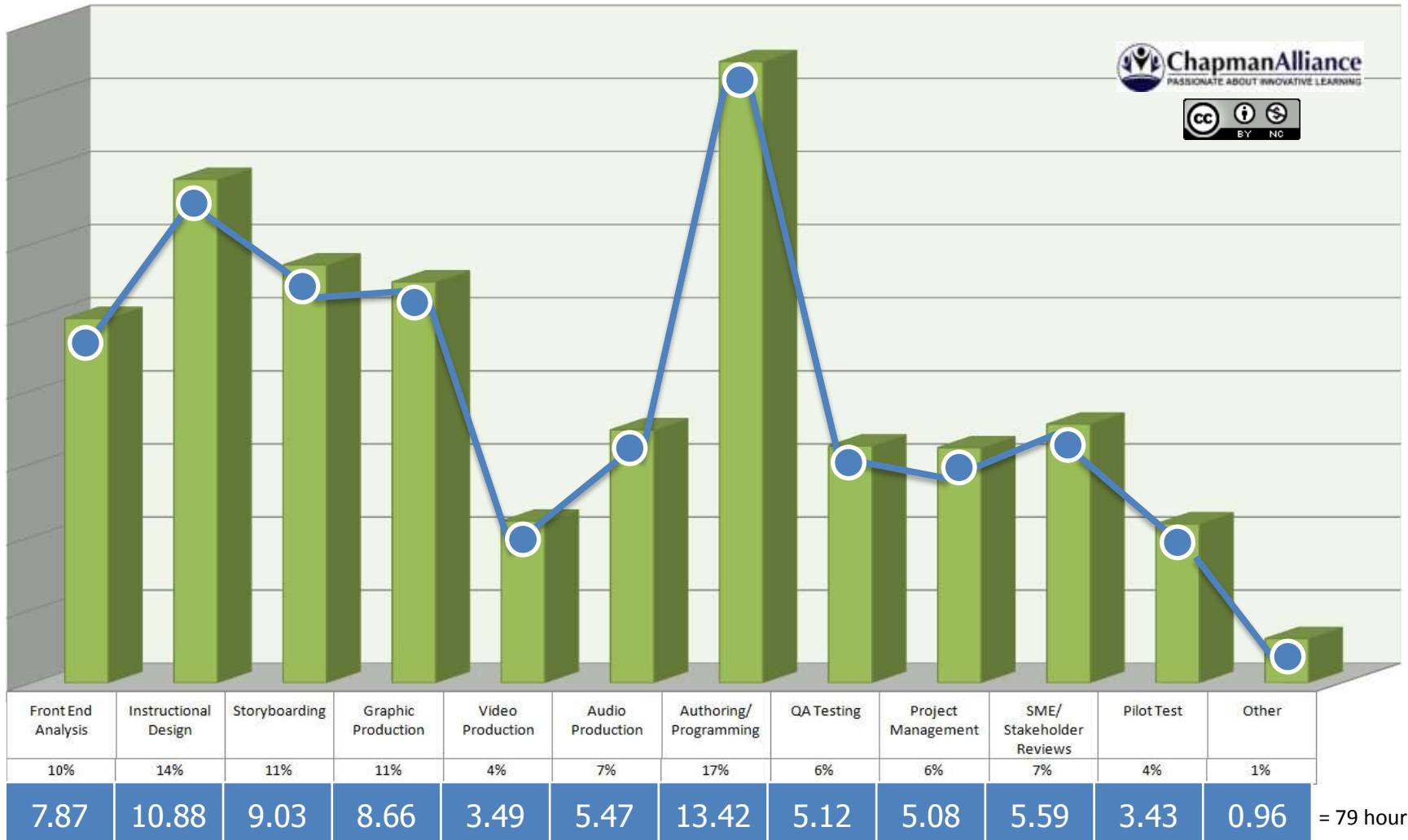
Overall Times and Ranges



Development of Level 1 eLearning

Itemized Development Tasks – How much time is spent in each area through the development process?

Snapshot: Average time allocation by task and time spent (all respondents)



Based on average of 79 development hours, per finished hour of Level 1 eLearning

NOTE: Times reflect time spent by all members of the development team including: instructional designers, writers, subject matter experts (SME), graphic artists, authors, media producers, project managers, etc.

Development of Level 1 eLearning

How much are organizations spending, on average, per-finished-hour, to create Level 1 eLearning?

\$10,054



We asked respondents:
List (if known) your
average, internal cost for
creating 1 finished hour
of Level 1 eLearning.

The cost shown is the average

Development of Level 1 eLearning

Combining Average Time and Average Cost to Estimate Development Costs



<u>Tasks</u>	% of time spent on each task	Time spent on each task (per finished hour)	1-hour Level 1 eLearning	5-hours Level 1 eLearning	10-hours Level 1 eLearning
Front End Analysis	10%	7.87	\$ 1,002	\$ 5,009	\$ 10,018
Instructional Design	14%	10.88	\$ 1,384	\$ 6,922	\$ 13,845
Storyboarding	11%	9.03	\$ 1,149	\$ 5,745	\$ 11,490
Graphic Production	11%	8.66	\$ 1,102	\$ 5,512	\$ 11,023
Video Production	4%	3.49	\$ 445	\$ 2,224	\$ 4,447
Audio Production	7%	5.47	\$ 696	\$ 3,478	\$ 6,956
Authoring/ Programming	17%	13.42	\$ 1,708	\$ 8,541	\$ 17,082
QA Testing	6%	5.12	\$ 651	\$ 3,257	\$ 6,515
Project Management	6%	5.08	\$ 646	\$ 3,232	\$ 6,463
SME/ Stakeholder Reviews	7%	5.59	\$ 711	\$ 3,557	\$ 7,115
Pilot Test	4%	3.43	\$ 437	\$ 2,185	\$ 4,370
Other	1%	0.96	\$ 122	\$ 608	\$ 1,216
Totals	100%	79	\$ 10,054	\$ 50,270	\$ 100,540

Variables:

* Average time of development per finished hour of Level 1 eLearning: **79**

** Average cost of development for 1 finished hour of Level 1 eLearning: **\$10,054**



NOTE: The numbers above assume that all tasks are repeated for each hour of instruction. The study did not explore the efficiency and reduction of time for longer courses by task.

Level 2 - eLearning

Development Benchmark



Development of Level 2 - eLearning

How is Level 2 eLearning Defined?

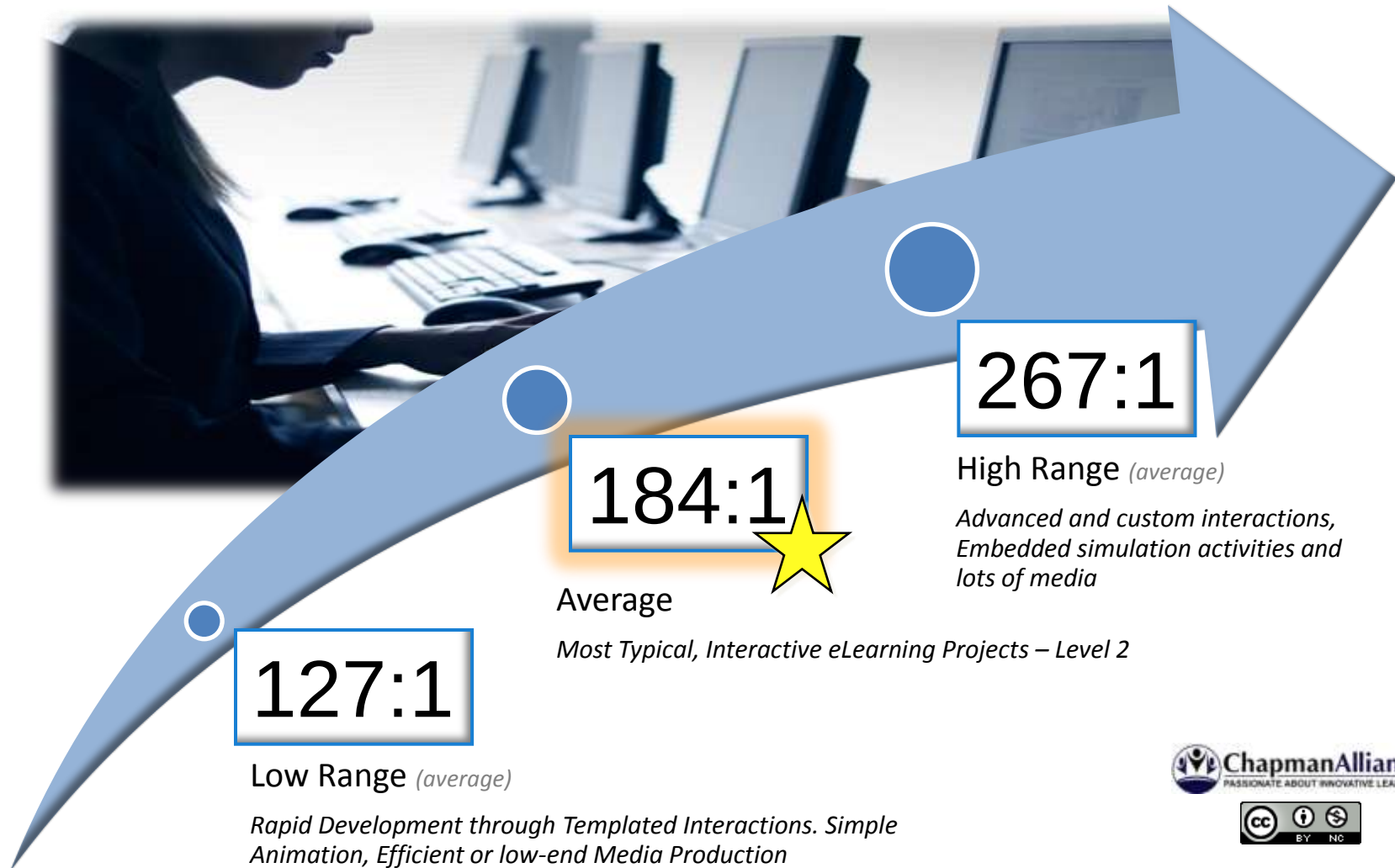
The following definitions were used to collect survey data...

Level	Definition
Level 1 eLearning (Basic)	Content pages, text, graphics, perhaps simple audio, perhaps simple video, test questions. NOTE: PowerPoint-to-eLearning often falls into this category. Basically pages with assessment.
 Level 2 eLearning (Interactive)	Level 1... plus 25% (or more) interactive exercises (allowing learners to perform virtual "try it" exercises), liberal use of multimedia (audio, video, animations)
Level 3 eLearning (Advanced)	Highly interactive, possibly simulation or serious game based, use of avatars, custom interactions, award winning caliber courseware

VERY IMPORTANT: It is important to understand that these definitions were written to be relatively broad by design. Having conducted similar surveys for many years, we've found that defining the exact framework of each level makes it virtually impossible for survey respondents to reply (unless their courses just happen to match the definition completely). By allowing for some interpretation, we have found that these guidelines yield the desired results, especially since respondents are also allowed to list low range, average, and high range based on further characteristics of learning content development.

Development of Level 2 - eLearning

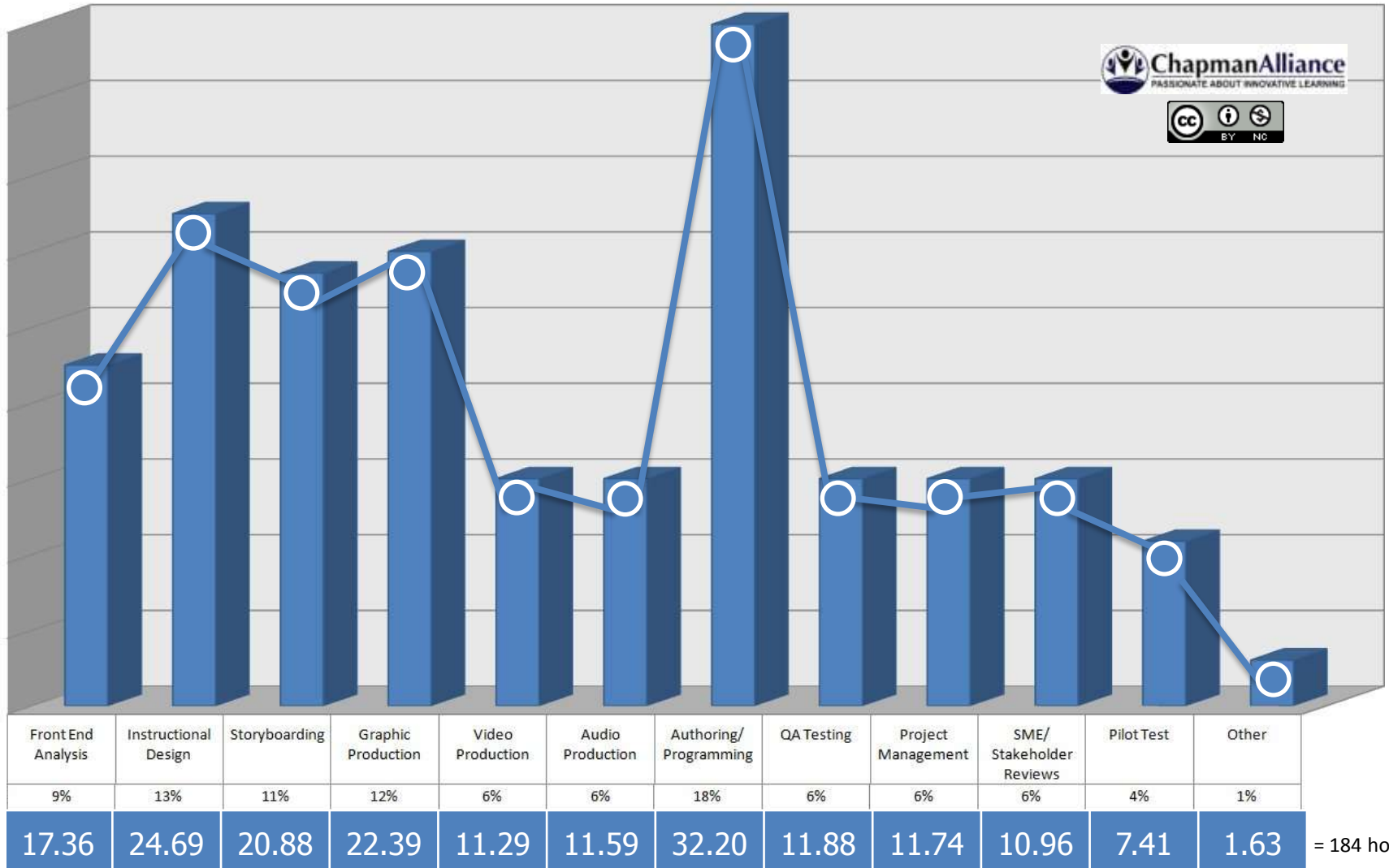
Overall Times and Ranges



Development of Level 2 eLearning

Itemized Development Tasks – How much time is spent in each area through the development process?

Snapshot: Average time allocation by task and time spent (all respondents)



Based on average of 184 development hours, per finished hour of Level 2 eLearning

NOTE: Times reflect time spent by all members of the development team including: instructional designers, writers, subject matter experts (SME), graphic artists, authors, media producers, project managers, etc.

\$18,583



We asked respondents:
List (if known) your
average, internal cost for
creating 1 finished hour
of Level 2 eLearning.

The cost shown is the average

Development of Level 2 eLearning

Combining Average Time and Average Cost to Estimate Development Costs



<u>Tasks</u>	% of time spent on each task	Time spent on each task (per finished hour)	1-hour Level 2 eLearning	5-hours Level 2 eLearning	10-hours Level 2 eLearning
Front End Analysis	9%	17.36	\$ 1,753	\$ 8,767	\$ 17,535
Instructional Design	13%	24.69	\$ 2,493	\$ 12,466	\$ 24,932
Storyboarding	11%	20.88	\$ 2,108	\$ 10,542	\$ 21,085
Graphic Production	12%	22.39	\$ 2,261	\$ 11,305	\$ 22,609
Video Production	6%	11.29	\$ 1,140	\$ 5,700	\$ 11,400
Audio Production	6%	11.59	\$ 1,171	\$ 5,855	\$ 11,710
Authoring/ Programming	18%	32.20	\$ 3,252	\$ 16,260	\$ 32,520
QA Testing	6%	11.88	\$ 1,200	\$ 5,998	\$ 11,996
Project Management	6%	11.74	\$ 1,185	\$ 5,926	\$ 11,853
SME/ Stakeholder Reviews	6%	10.96	\$ 1,107	\$ 5,533	\$ 11,066
Pilot Test	4%	7.41	\$ 748	\$ 3,740	\$ 7,481
Other	1%	1.63	\$ 164	\$ 822	\$ 1,644
Totals	100%	184	\$ 18,583	\$ 92,915	\$ 185,830

Variables:

- * Average time of development per finished hour of Level 2 eLearning: **184**
- ** Average cost of development for 1 finished hour of Level 2 eLearning: **\$18,583**



NOTE: The numbers above assume that all tasks are repeated for each hour of instruction. The study did not explore the efficiency and reduction of time for longer courses by task.

Level 3 - eLearning

Development Benchmark



Development of Level 3 - eLearning

How is Level 3 eLearning Defined?

The following definitions were used to collect survey data...

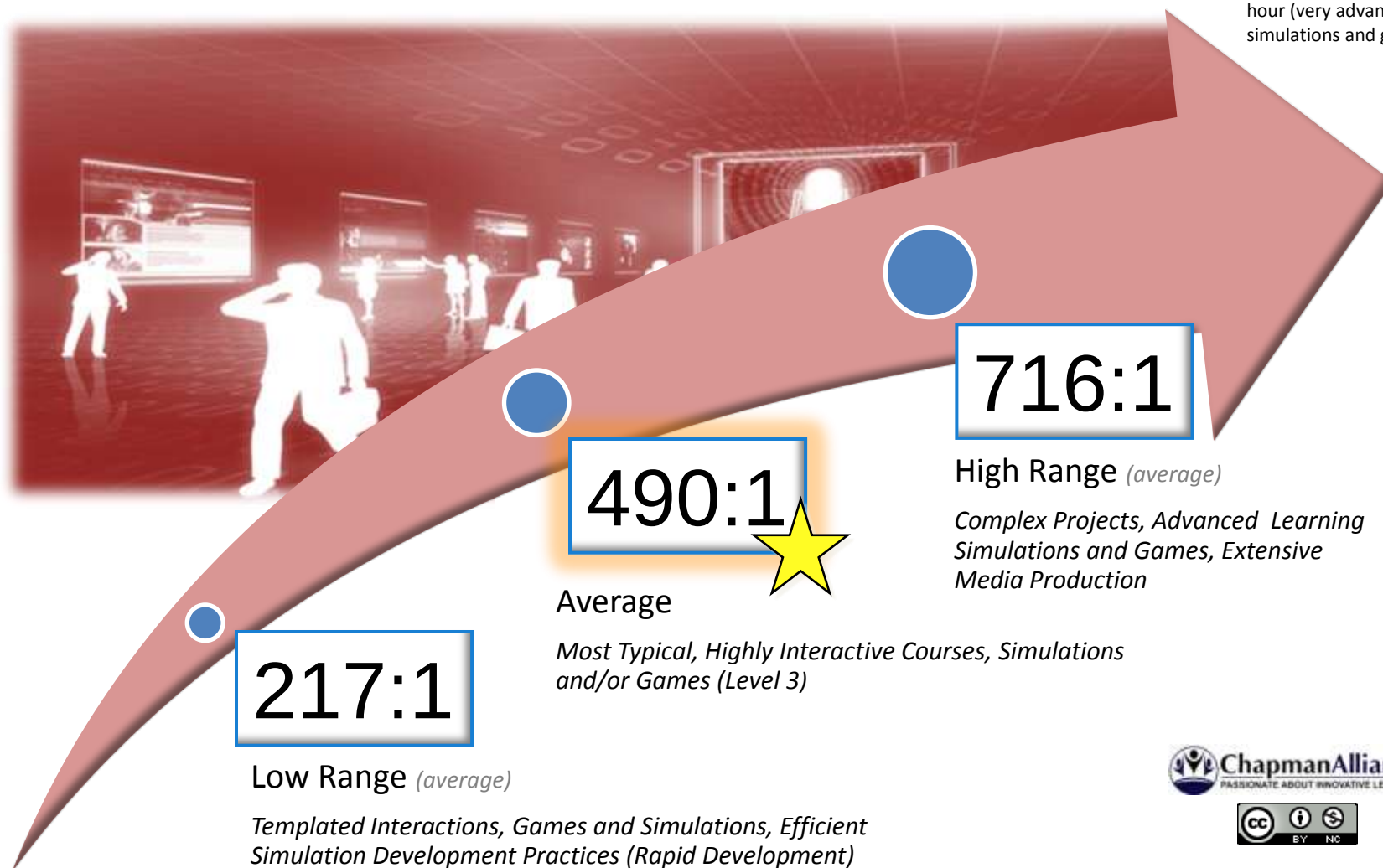
Level	Definition
Level 1 eLearning (Basic)	Content pages, text, graphics, perhaps simple audio, perhaps simple video, test questions. NOTE: PowerPoint-to-eLearning often falls into this category. Basically pages with assessment.
Level 2 eLearning (Interactive)	Level 1... plus 25% (or more) interactive exercises (allowing learners to perform virtual "try it" exercises), liberal use of multimedia (audio, video, animations)
 Level 3 eLearning (Advanced)	Highly interactive, possibly simulation or serious game-based, use of avatars, custom interactions, award-winning caliber courseware

VERY IMPORTANT: It is important to understand that these definitions were written to be relatively broad **by design**. Having conducted similar surveys for many years, we've found that defining the exact framework of each level makes it virtually impossible for survey respondents to reply (unless their courses just happen to match the definition completely). By allowing for some interpretation, we have found that these guidelines yield the desired results, especially since respondents are also allowed to list low range, average, and high range based on further characteristics of learning content development.

Development of Level 3 - eLearning

Overall Times and Ranges

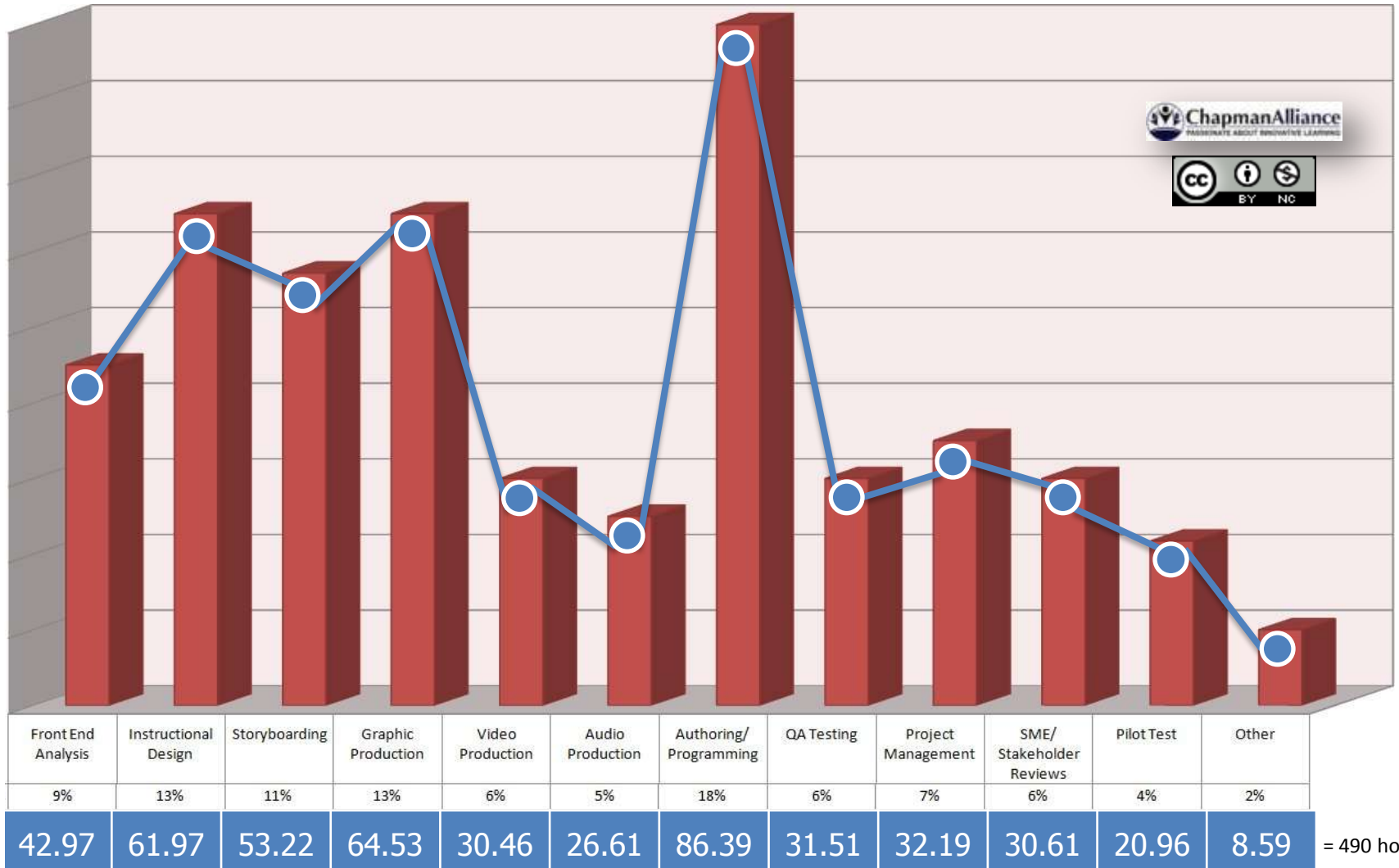
NOTE: Several respondents listed times greater than **2000+ hours** of development per finished hour (very advanced learning simulations and games)



Development of Level 3 eLearning

Itemized Development Tasks – How much time is spent in each area through the development process?

Snapshot: Average time allocation by task and time spent (all respondents)



Number of **hours** of development time in each task, per finished hour (people hours)

Based on average of 490 development hours, per finished hour of Level 3 eLearning

NOTE: Times reflect time spent by all members of the development team including: instructional designers, writers, subject matter experts (SME), graphic artists, authors, media producers, project managers, etc.

Development of Level 3 eLearning

How much are organizations spending, on average, per-finished-hour, to create Level 3 eLearning?

\$50,371

We asked respondents:
List (if known) your
average, internal cost for
creating 1 finished hour
of Level 3 eLearning.

The cost shown is the average



Development of Level 3 eLearning

Combining Average Time and Average Cost to Estimate Development Costs



<u>Tasks</u>	% of time spent on each task	Time spent on each task (per finished hour)	1-hour Level 3 eLearning	5-hours Level 3 eLearning	10-hours Level 3 eLearning
Front End Analysis	9%	42.97	\$ 4,417	\$ 22,086	\$ 44,171
Instructional Design	13%	61.97	\$ 6,370	\$ 31,850	\$ 63,700
Storyboarding	11%	53.22	\$ 5,471	\$ 27,355	\$ 54,711
Graphic Production	13%	64.53	\$ 6,633	\$ 33,167	\$ 66,335
Video Production	6%	30.46	\$ 3,131	\$ 15,654	\$ 31,308
Audio Production	5%	26.61	\$ 2,736	\$ 13,678	\$ 27,355
Authoring/ Programming	18%	86.39	\$ 8,881	\$ 44,404	\$ 88,808
QA Testing	6%	31.51	\$ 3,239	\$ 16,196	\$ 32,392
Project Management	7%	32.19	\$ 3,309	\$ 16,545	\$ 33,090
SME/ Stakeholder Reviews	6%	30.61	\$ 3,146	\$ 15,731	\$ 31,463
Pilot Test	4%	20.96	\$ 2,154	\$ 10,772	\$ 21,543
Other	2%	8.59	\$ 883	\$ 4,417	\$ 8,834
Totals	100%	490	\$ 50,371	\$ 251,855	\$ 503,710

Variables:

- * Average time of development per finished hour of Level 3 eLearning: **490**
- ** Average cost of development for 1 finished hour of Level 3 eLearning: **\$50,371**



NOTE: The numbers above assume that all tasks are repeated for each hour of instruction. The study did not explore the efficiency and reduction of time for longer courses by task.

Comparison Charts

Development Ratios and Costs



Development Ratios - Summary

ILT, Level 1 eLearning (Basic), Level 2 eLearning (Interactive), Level 3 eLearning (Advanced)



	Rapid Development, Simple Projects	Average <i>Typical Project</i>	Advanced, Complex, More Media
Instructor-Led Training (ILT)	22:1	43:1	82:1
Level 1 eLearning (Basic) – Content Pages and Assessment	49:1	79:1	125:1
Level 2 eLearning (Interactive) – Level 1, plus 25%+ interactive exercises	127:1	184:1	267:1
Level 3 eLearning (Advanced) – Simulations, Games, Award Winning type	217:1	490:1	716:1

Average Cost Comparisons - Summary

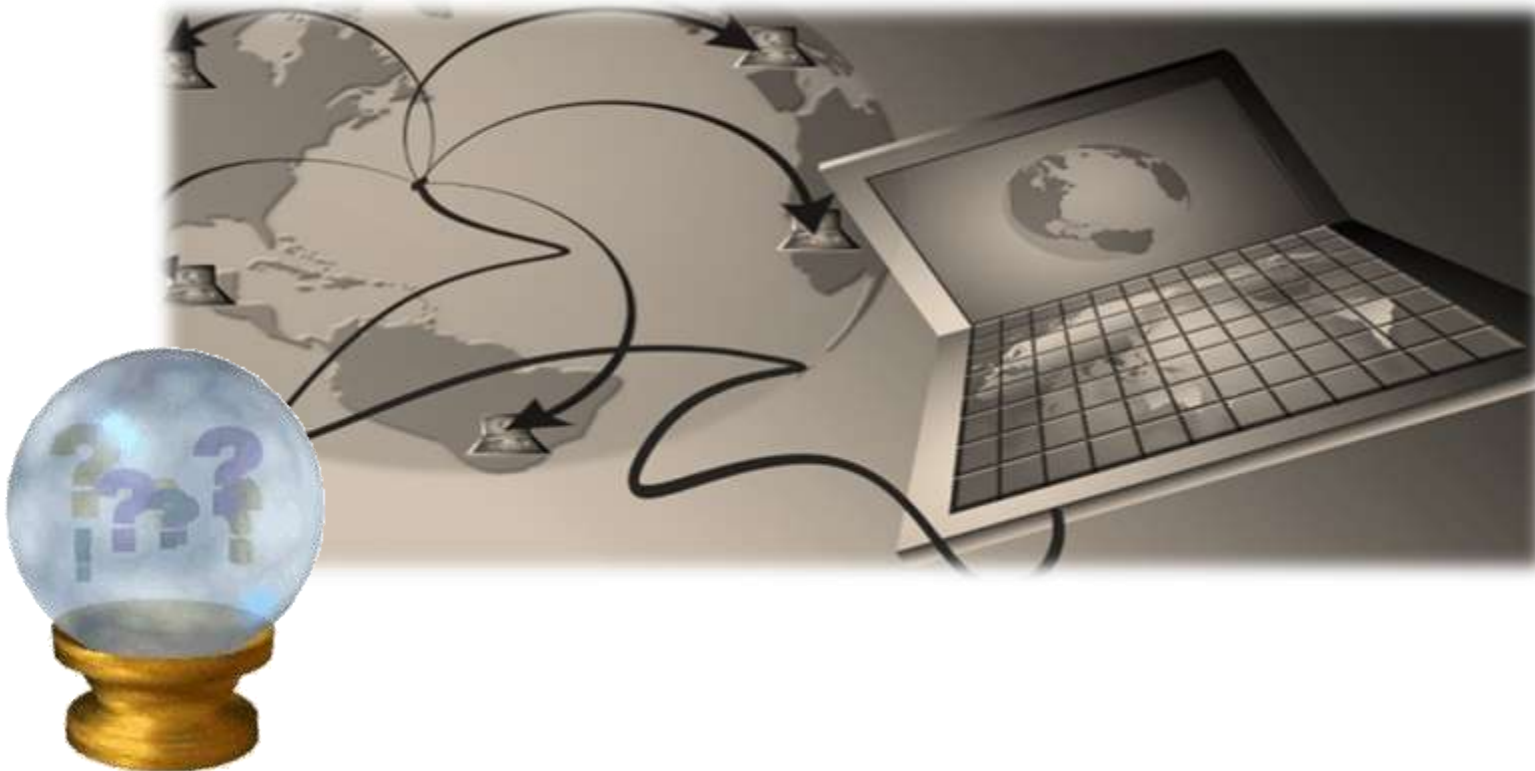
ILT, Level 1 eLearning (Basic), Level 2 eLearning (Interactive), Level 3 eLearning (Advanced)



	Average Cost per-finished hour
Instructor-Led Training (ILT)	\$5,934
Level 1 eLearning (Basic) – Content Pages and Assessment	\$10,054
Level 2 eLearning (Interactive) – Level 1, plus 25%+ interactive exercises	\$18,583
Level 3 eLearning (Advanced) – Simulations, Games, Award Winning type	\$50,371

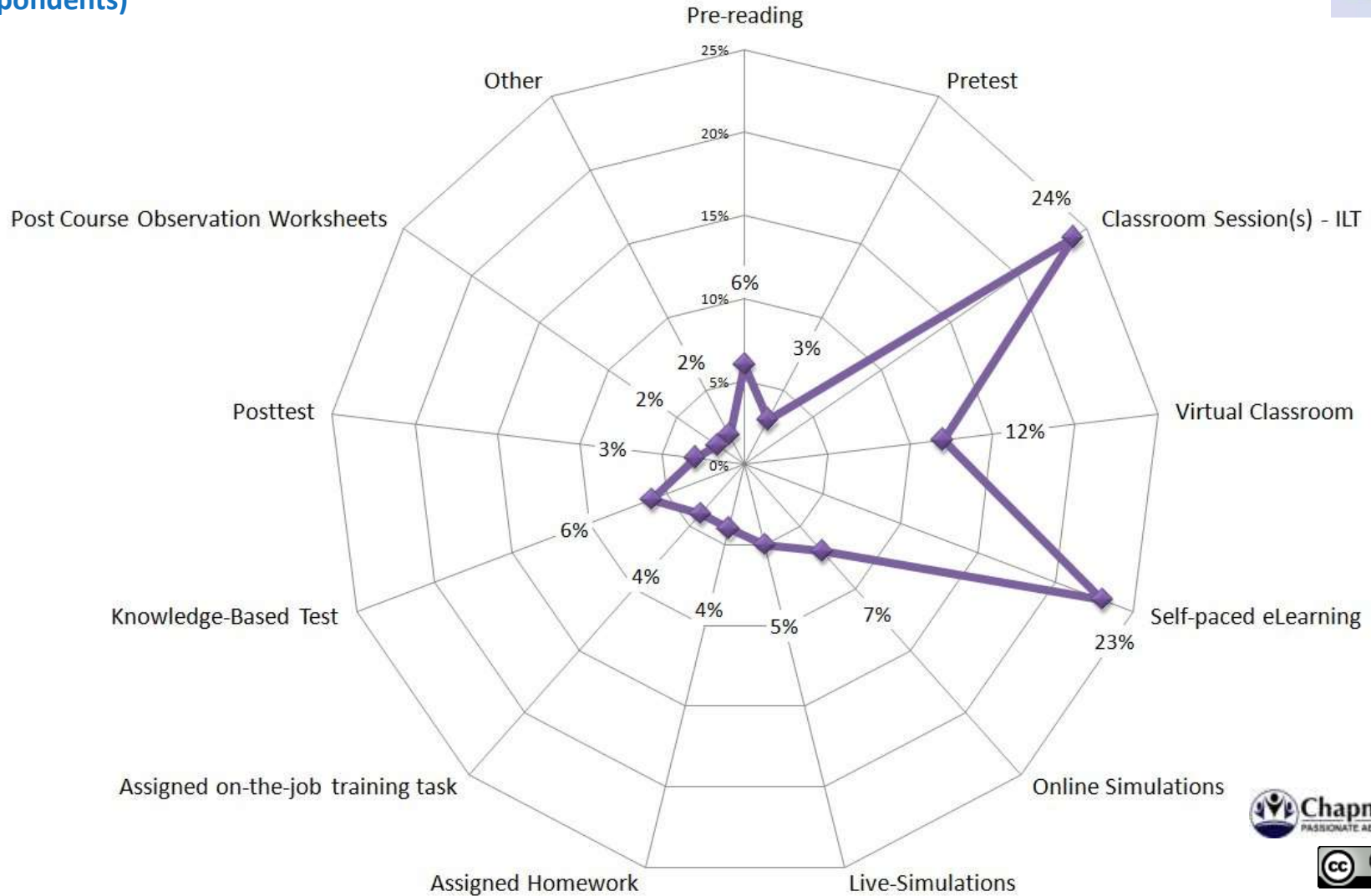
Blended Learning

Benchmark of Blended Learning Components



Blended Learning Components

Radar chart showing components most frequently used as part of a blended learning course (across all respondents)



Blended Learning Components

Components used most frequently as part of a blend



Frequent Use

- Classroom Session(s) ILT (24%)
- Self-Paced eLearning (23%)
- Virtual Classroom Sessions (12%)

Some Use

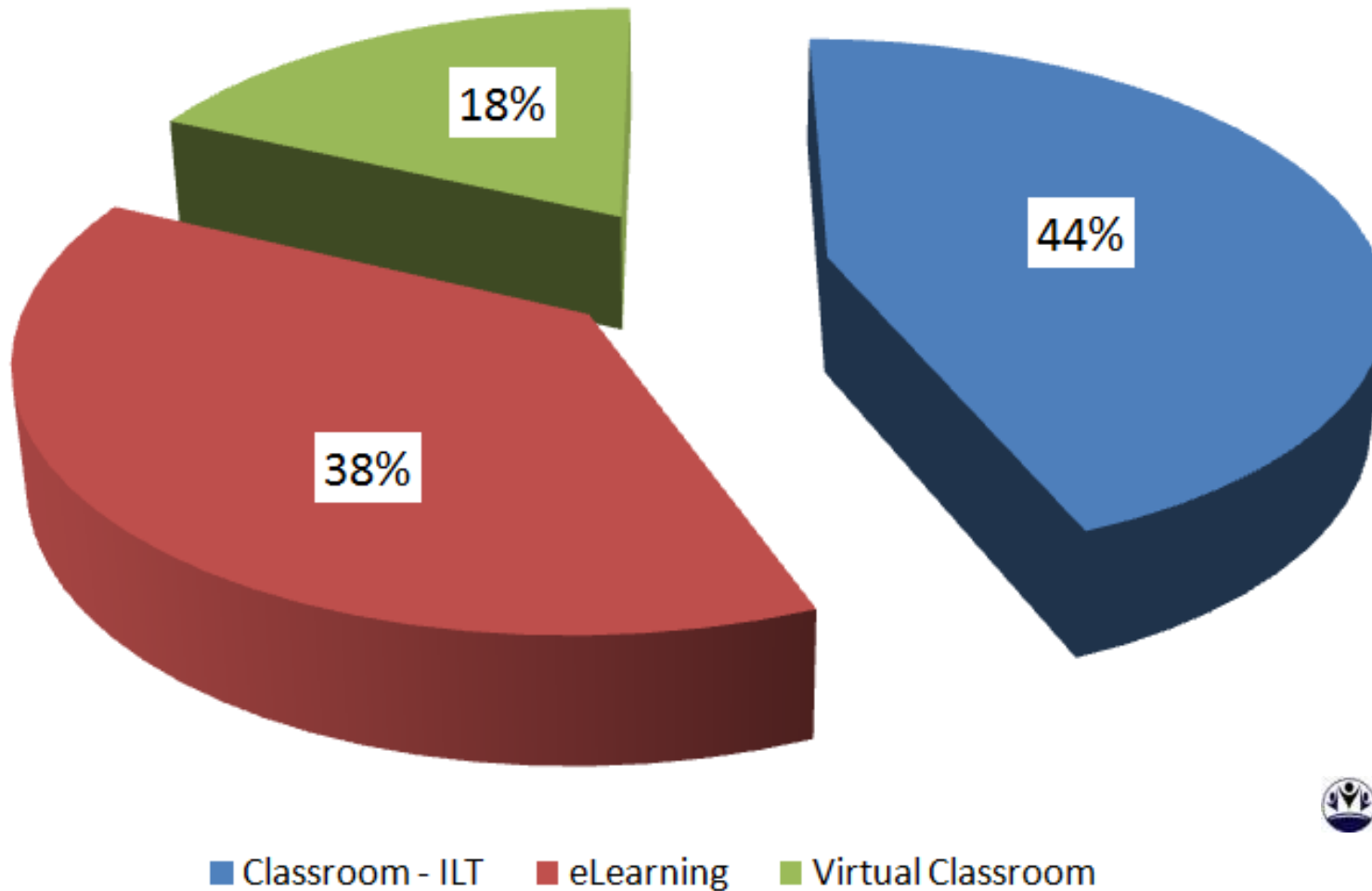
- Online Simulations (7%)
- Pre-reading (6%)
- Knowledge-Based Tests (6%)
- Live Simulations (5%)

Low Frequency

- On-the-job Training Tasks (4%)
- Assigned Homework (completed outside class) (4%)
- Pretests (3%)
- Posttests (3%)
- Post Course Observation Worksheets (2%)

Blended Learning Components

Average mix of major components: Classroom, Virtual Classroom and E-Learning (survey respondents)



Blended Learning

What is the average size of a Blended Learning Course? ...and what are organizations typically paying for internal development of blended learning (on average)?

NOTE: These were asked as three separate questions.

1. *Components used in blend*
2. *Typical length of blend*
3. *Average cost of blend*

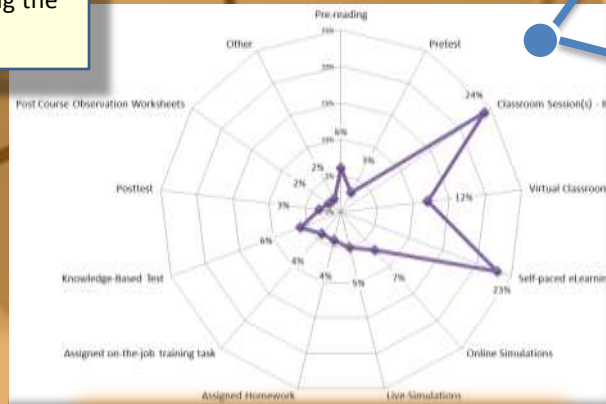
We realize that this data doesn't mesh well with previous questions about development per finished hour ratios.

If you average out the costs, it would seem to suggest that blended learning is created at a rate of \$809 per finished hour (\$25,900 divided by 32).

We thought it would be helpful to share the data anyway. Please understand these constraints when interpreting the data

\$25,900

Average Duration 32 hours



Average Configuration





About the Author

Bryan Chapman is Chief Learning Strategist at Chapman Alliance; a provider of research-centric consulting solutions that assist organizations in defining, operating and optimizing their strategic learning initiatives. As a veteran in the industry, he has over 20 years experience and has worked with such organizations as American Express, Shell, Kodak, Sprint, Sharp Electronics, Honda, IBM, Microsoft, Avon, UNICEF, American Red Cross, The Food and Drug Administration, U.S. State Department, and many others; to help them optimize learning efficiency through the use of innovative learning techniques and technologies. [Click here](#) for a full bio.

Please feel free to contact me if you need some assistance...

- working through learning management system (LMS) or any other learning technology selection project
- finding and applying learning industry research; custom research projects
- optimizing or establishing your learning governance approach
- exploring best practices for rapid learning development
- learning strategy “jam sessions” (available as a 2-hour block, full-day onsite, or as a workshop)
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Contact information:

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