



Pearson

Market research & design implications: Learners' online course expectations

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Purpose

This document collates research about learner expectations of online courses from multiple sources. It then shows how these learner expectations could be met by implementing specific learning design principles in an online course. It seeks to address a number of questions put forward by higher education institutions to help inform the course design of their online programmes.

In response to the research questions posed by these institution, Pearson's Market Research team completed research and presented their findings. Pearson's Course Development team then reviewed this research and suggested design implications, including additional theoretical research to support deductions. The market research findings and design implications are presented in separate columns (second and third respectively) below. They are meant to be read in their entirety for each theme rather than back and forth.

Sources

The sources examined by the Market Research team include a large scale survey of online learners along with a number of academic articles based on research using smaller sample sizes. The large scale study is the Aslanian Market Research annual report which asks 1,500 learners about their preferences and expectations of online courses and thus offers specific insights on course design. The smaller scale academic articles are less specific to course design and less statistically robust, but provide useful points of departure for design considerations. The report also takes into account a number of surveys delivered by UK HEIs around their learners' experience of online courses. These are not fully cited in the report for reasons of commercial sensitivity.

The sources cited by the Course Development team include a wide range of insight gained from Pearson-led focus groups to industry-accepted principles as well as research from Pearson's team of PhDs in learning sciences to third-party research studies.

Limitations

Whilst the pieces collated here offer some insight into the specific questions it has not been able to address them all. For example, it is difficult to discover meaningful quantitative inputs from learners (or any "customer group" for that matter) in the abstract, so questions such as "how much technical support is required?" would generally be (perhaps unhelpfully) answered with "as much as I need".

It is important to note that much of the literature is from the United States – which is to be expected given the maturity of America's online learning market. It also encompasses a broad range of levels of study, from community colleges to postgraduate programmes. Even still, there are some strong general themes throughout, which are summarised in the next section before each key question is explored in detail.

Themes

Five themes emerged from the articles, surveys and reports examined, which are summarised below:

- **Strong level of instructor presence and expertise** in online delivery is important. Learners respond favourably when instructors are active within courses, contributing to discussion boards and responding to queries quickly. They are frustrated when responses are delayed. Learners crave instructor formative and summative feedback, which should be a balance of instant consistent generic responses (e.g. quiz results, self-assessment marking rubrics and model answers) and personalised developed responses (e.g. live seminars/tutorials and written individual feedback).

- **Collaboration and contact with peers** is seen (generally) as important to learners. Discussion boards were seen as effective tools for promoting interaction. However, peer interaction needs to be developed further than discussion boards; with both explicit (online chat, wiki pages etc.) and implicit tasks (e.g. sharing feelings and emotions in tasks/open journals). Collaboration is fundamental to developing critical thinking skills and should be encouraged through integrated online mechanisms. For example, including some synchronous lessons/discussion groups may further enhance learner engagement.
- **Emphasis on employability** is key. Providing links between employers and students is one of the key benefits of an online course. Employers can pre-record videos, help design tasks, assist with aligning courses to graduate skills and 'guest appear' in live online seminars. Providing networking opportunities for students is a key advantage for future employment and complements both learning theory and Government policies, which encourage HE providers to consider learners' next steps *after* they have achieved their accreditation.
- **Self-paced learning** is favoured over a traditional, rigorously scheduled approach. Flexibility in terms of when and where an online learner is able to engage with the learning is generally viewed positively. Instructional design signals and VLE integrated tools (e.g. timings for tasks, learning checklists, a progress bar, etc.) can be used to aid this self-regulated experience. Online learners should be able to access all of their content online and as much content as possible should be available for download/offline access. Courses should be designed with laptops/desktops as the first suggested mode of access. Therefore, all content should be designed mobile friendly, rather than mobile first.
- **Interactivity** is important to keep learners engaged. It extends beyond course content (though this is important) into interactivity among peers, instructors and platforms. By combining careful instructional design (instructional alignment, range of interactive activities, chunked content etc.) with technological capabilities (utilising the VLE, identifying useful plugins, social media integration, collaboration tools and online/offline content etc.), learners can be presented with a course that does not just mirror the experience of an on campus student, but improves upon it. Research points to the conclusion that it is not so much the quantity, but the quality and purpose of the content that is important. Content should be chunked and a clear learning path should be laid out, ideally one that allows for the course to be personalised for each learner, whilst still retaining consistency between learners' experiences.

To conclude, learners' expectations of an online course are varied and not yet fully quantified by research. However, the key themes (instructor presence, peer collaboration, employability, self-paced learning and interactivity), which are outlined above and detailed below can inform key considerations for any course design approach. Given that programmes and modules vary based on delivery mode, content, instructor approach and assessment type, it is important that course structures are flexible enough to support these nuances, whilst being rigid enough to ensure an excellent learning experience and consistent learning journey. Pearson suggests the above recommendations are considered alongside our 45 learning design principles, which have been developed by our team of dedicated learning design academic researchers.

Key Questions

How do learners want to interact with the course?

Evidence is categorised into themes (content, peers, instructors) in accordance with Moore's three types of learner interactions with a course¹.

A general point on learner hours: The Aslanian report collected responses on the time online learners study per week. 80% of postgraduate learners do fewer than 16-20 hours per week. A 15-credit module delivered in eight weeks requires 18.75 study hours per week. Thus, ensuring high levels of engagement is important.

Theme	Market Research Findings	Suggested Learning Design Implications
Content (types, assessment, online/in-person, design sophistication)	<ul style="list-style-type: none"> The Aslanian report provides statistics around a number of "engagement tools" for learner to learner interaction². The majority (40%) of respondents saw message boards as the most effective means to achieve this learner to learner engagement. A quarter suggested group projects were the most effective tool. 16% felt that being assigned a "partner" was the best method. 11% felt that jointly working on simulations was the strongest method. This latter is interesting as there is growing interest in the use of simulations as a teaching tool given its applicability to real world scenarios (see notes on employability). In terms of other content types learners may expect to see, there is little in the literature to provide firm, quantitative, guidelines around this. Lemos and Pedro's study asserts that variety in terms of types of resource is important³: <ul style="list-style-type: none"> <i>"One of the most relevant conclusions, of the study is the high level of learner expectations regarding the course. The learners showed higher expectations for the 'resources' dimension, which reinforces the need to focusing on providing simple, useful, diverse and attractive materials and simultaneously with rich graphics and interactivity."</i> Dixson asserts that certain, activities (termed "active" tasks) are more likely to promote engagement with learners than 	<ul style="list-style-type: none"> Create a consistent base structure for each module that can be adapted to fit exact requirements. For example, set the structure as having: pre- and post-knowledge check quizzes, readings, case studies and then three weekly tasks. The format of these three weekly tasks can then be changed (e.g. wiki, another discussion board, group task) to fit the module content. Use the module objectives and assessment requirements as a starting point for constructing these tasks. The content should dictate the type and format of the task (e.g. discussion board, wiki, independent task), rather than the other way around. When designing an online course, it's best to consider the skills students need to learn, rather than only the content/knowledge they need to pass the assessment. Online learners are often overwhelmed by huge quantities of content⁵ and dislike long scrolling lists. What students are lacking is the instruction and scaffolding needed to enable them to find, review and select appropriate content for themselves in the future. There is an argument for seeing online tutors as 'content curators' rather than just content experts. In this way they are in the role of providing learners with the skills they need to develop their own practice, rather

¹ Moore, M. G. (1989). Editorial: Three types of interaction. *The American Journal of Distance Education*, 3(2), 1-6

² Aslanian Market Research with The Learning House [Online College Students 2015](#)

³ Lemos & Pedro (2012) [Learner Expectation and Satisfaction in Post-Graduate Online Courses](#), ICICTE Proceedings

⁵ Bull, B (2013) *Eight roles of an effective online teacher*, Available at: <http://www.facultyfocus.com/articles/online-education/eight-roles-of-an-effective-online-teacher/> (Accessed: 11.12.15).

	<p>“passive” ones⁴. Examples of such “active” tasks would be: applying concepts to case studies or problem solving; class discussion forums, group projects; research papers, and; current events assignments. “Passive” (and therefore less engaging) activities include: reading; taking quizzes, and; watching/looking at PowerPoints or video lectures.</p> <ul style="list-style-type: none"> • One of the UK university surveys examined found, among its learners, a desire for seamless integration between the e-learning platform and resources held on the library server. 	<p>than just spoon-feeding them existing content and asking learners to repeat it⁶.</p> <ul style="list-style-type: none"> • Employ instructional designers (IDs) to create realistic interactive scenarios to bring the learning to life, which will help students 'learn by doing'^{7&8}. Ensure IDs work with module leads or employers to find realistic scenarios to be explored and that they are given all of the raw content needed to write them. Ideally these scenarios will have questions that allow the story to branch in different directions, showing learners the consequence of their actions in a safe online environment⁹ and allowing the content to be personalised.
Peers (frequency, social, academic)	<ul style="list-style-type: none"> • Dixon finds a correlation between learner-to-learner and instructor-to-learner communications and higher learner engagement with a course. The learner-to-learner interactions were presented as “discussion boards about the concepts” which seems to indicate a more formal, academic framework than a social one¹⁰. • Martin et al assert that learner-to-learner interaction in a synchronous virtual classroom setting improves engagement. This covered both academic and social (the latter to a lesser extent) as the context was in a “classroom” but break-out boards and text chat allowed learners to interact, thus building elements of social cohesion¹¹. • Related to the above point, the Aslanian report indicates that 86% of postgraduate learners were willing to log in for synchronous discussions¹². Clearly, this is a high volume but it should be borne in mind that this particular study surveys US learners. In the US, most online learners are quite local to the institution delivering the online course (half live within 50 miles) so attendance of synchronous 	<ul style="list-style-type: none"> • Collaboration amongst learners is essential for effective learning and to promote a deeper level of thought¹⁶. Typically, discussion boards are the most common way to promote interaction, but we would encourage a range of different approaches to ensure learner engagement: e.g. group tasks accessed via wiki pages, group live classrooms and online social chat spaces. • Use discussion boards creatively. For example, they can be used as social spaces, as a way for learners to answer a key weekly question, and as a way for learners to submit an answer for peer or instructor assessment. • Designing tasks in a way that encourages learners to share their feelings and experiences with others can be a discreet way to encourage collaboration¹⁷ (e.g. share a journal entry on your progress with others, or apply this case study to your own experiences). Personal profiles and photos can also encourage a sense of community. • Regular live synchronous seminars can be used to encourage peer interaction. They should be recorded for those who

⁴ Dixon (2010) *Creating Effective Learner Engagement in Online Courses: What do Learners Find Engaging?* Journal of the Scholarship of Teaching & Learning, Vol 10, No. 2

⁶ Monahan, N (2015) More Content Doesn't Equal More Learning, Faculty Focus, Available online: <http://www.facultyfocus.com/articles/curriculum-development/more-content-doesnt-equal-more-learning/>

⁷ Lombardi (2007) Paper 1 By Marilyn M. Lombardi Edited by Diana G. Oblinger ELI, available online: <https://net.educause.edu/ir/library/pdf/eli3009.pdf>

⁸ Pearson Learning Design principles (2016) Learning Design, Available online: <https://heuk.pearson.com/products-and-services/course-development/learning-design.html>

⁹ Hoffman (2015) Designing learning scenarios for e-learning, Available online: http://eet.sdsu.edu/eetwiki/index.php/Designing_learning_scenarios_for_e-learning

¹⁰ Dixon (2010) *Creating Effective Learner Engagement in Online Courses: What do Learners Find Engaging?* Journal of the Scholarship of Teaching & Learning, Vol 10, No. 2

¹¹ Martin, Parker & Deale (2012) *Examining Interactivity in Synchronous Virtual Classrooms*, International Review of Research in Open & Distance Learning, Vol. 13, No. 3

¹² Aslanian Market Research with The Learning House *Online College Students 2015*

¹⁶ Conrad, RM & Donaldson J (2004) *Engaging the Online Learner*, John Wiley and Sons, San Francisco

¹⁷ Garcia-O'Neil, E. (2016) 7 Things Instructional Designers Can Do to Improve Social Presence in Online Learning, eLearning industry, Available online: <http://elearningindustry.com/social-presence-in-online-learning-7-things-instructional-designers-can-improve>

	<p>discussions is unlikely to be affected by learners being dotted around the globe, over a range of time zones.</p> <ul style="list-style-type: none"> • Garcia suggests that developing relationships with peers within a social context is important to a positive learning experience¹³. • Koper indicates most prevalent learner expectations are around collaboration with instructors and peers¹⁴. • Nielsen shows a decrease in learners who find social media helpful in their studies, with 11% fewer learners citing Facebook as helpful (60% in 2013 and 49% in 2015) and 3% more learners suggesting courses not use social media because it does not help with their learners (25% in 2013 and 28% in 2015)¹⁵. That said, 42% use social media to share study information with other learners, 33% belong to online study groups/communities and 22% receive resource recommendations from other learners through social media. • None of the reports reviewed gave an indication on the “ideal” frequency nor duration of such activities. 	<p>cannot attend. Schedule the seminars at different times to accommodate differing schedules and record the sessions so all learners can access them in an archive.</p> <ul style="list-style-type: none"> • Social media can be used to encourage: peer discussions, the sharing of ideas and resources, and as a general way for learners to socialise. However, research suggests that it should not be used to the detriment of the content presentation or required learner collaboration. For example, encourage learners to discuss socially via Facebook or Twitter, but also provide a VLE inbuilt alternative for learners to complete those tasks (social discussion boards, VLE people profiles and chat plugins) to keep the collaboration within the security of the VLE. Social media can be built into courses discretely through Module Lead assigned blogs and Twitter feeds, which can feed into the VLE module homepage. • Social media can be used as a way for learners to access the course. For example, logging-in via Facebook, Google account or LinkedIn. It can also be used as a way to share success, for example, the course can be designed so that badges are released when learners achieve certain achievements. These badges can then be ‘pushed’ to their LinkedIn account.
<p>Instructors (frequency, scheduled/ ad-hoc, 1-to-1/ group)</p>	<ul style="list-style-type: none"> • Dixson finds a correlation between learner-to-learner and instructor-to-learner communications and higher learner engagement with a course¹⁸. • Martin et al assert that instructor-to-learner interaction in a synchronous setting improves engagement¹⁹. • Koper indicates most prevalent learner expectations are around collaboration with instructors and peers. Data suggests a very strong preference for instructors providing stimulation by providing feedback (4.18 on a scale of 5)²⁰. • None of the reports reviewed gave an indication on the “ideal” frequency nor duration of such activities. It is assumed, though, that instructor-led synchronous class 	<ul style="list-style-type: none"> • Use a range tools to give a balance of personal (live webinars, written feedback response, annotated learner answers, recorded audio/video feedback) and generic feedback (instant quiz answers directing learners to where they can revise further, formative assessment marking rubrics, exemplar answers (including strong, medium and weak answers so that learners can see the difference). • Build in assigned ‘feedback and response’ time into instructors’ contracts to ensure that time is spent each day: replying to emails, responding in discussion boards, holding one-to-one tutorials or group webinars and reviewing learners’ wiki answers.

¹³ Garcia, Abrego & Calvillo (2014) *A Study of Hybrid Instructional Delivery for Graduate Learners in an Educational Leadership Course*. International Journal of E-Learning & Distance Education, Vol. 29, No. 1

¹⁴ Koper (2015) *How Do Learners Want to Learn in Online Distance Education? Profiling Learner Preferences*, International Review of Research in Open and Distributed Learning, Vol. 16, No. 1

¹⁵ Nielsen. *Students’ Information Sources in the Digital World*, 2015/16. January 2016.

¹⁸ Dixson (2010) *Creating Effective Learner Engagement in Online Courses: What do Learners Find Engaging?* Journal of the Scholarship of Teaching & Learning, Vol 10, No. 2

¹⁹ Martin, Parker & Deale (2012) *Examining Interactivity in Synchronous Virtual Classrooms*. International Review of Research in Open & Distance Learning, Vol. 13, No. 3

²⁰ Koper (2015) *How Do Learners Want to Learn in Online Distance Education? Profiling Learner Preferences*, International Review of Research in Open and Distributed Learning, Vol. 16, No. 1

discussions would be scheduled and not ad-hoc. Hare-Bork & Rucks-Ahidiana state that instructor communication is very important to online learners and found that not meeting learner expectations in terms of responding to queries was one of the main causes of tension between learners and instructors²¹. They also point to the importance of feedback from instructors, and how feedback should be actively, rather than reactively/retrospectively delivered. This theme is echoed by Selvaggi's study, which found learners' performance was improved by regular instructor interaction and feedback²².

- Feedback, generally, could be on a more "as demanded" basis. It is well documented that learners at all levels place great value in speedy feedback and it is suggested that online learners would be no different in this regard.

- Instructors should also make time to view learners' scores and activity (how often/long learners are in the online course) to monitor and intervene where necessary because trends and outliers can inform their teaching and interactions with learners.
- Feedback must be clear, timely, focused and help 'feed forward' learner progress²³. Help tutors to proactively support and scaffold learners through formative assessment structure and VLE design. For example, weekly written feedback (in response to an individual task) should include feedback focused not only on current performance but on how to improve in future tasks. The VLE can be structured to support this process by creating a collated feedback page in a student portfolio/collation page. This would allow both the student and tutor to see how the student is developing and whether they are progressing, or making the same mistakes time and time again.
- Set clear task timelines for instructors and plot out their weekly timetable to manage expectations. For example: Monday = check emails, hold webinar, reply to discussion board posts. Tuesday = check emails, hold two tutorials, check wiki page and post a question, put a new article of reading in the 'additional resources' area.

²¹ Hare-Bork & Rucks-Ahidiana (2013) *Role Ambiguity in Online Courses: An Analysis of Learner & Instructor Expectations*, CCRC Working Paper No. 64

²² Selvaggi (2015) *An Exploratory Study of Levels of Interaction Occurring with Graduate Learners in an Online Literacy Course*, International Journal of E-Learning & Distance Education, Vol. 31, No. 1

²³ Pearson Learning Design principles (2016) Learning Design, Available online: <https://heuk.pearson.com/products-and-services/course-development/learning-design.html>

How do learners want the course to be designed?

Evidence is categorised into themes (look and feel, usability, accessibility) that encompass key aspects of design.

Theme	Market Research Findings	Suggested Learning Design Implications
Look and feel	<ul style="list-style-type: none"> Learners tend to expect easily navigable, clear (in terms of instructions for use and general layout) design. In a number of the university surveys examined, common learner frustrations were articulated around course pages being “clunky” which contrasts their expectations that course design be “excellent”. 	<ul style="list-style-type: none"> Learners prefer a clear and consistent course look and feel²⁴. Although each module will have different requirements, the general organisation of the content should remain the same. Organise the weekly content in manageable chunks, using verbs (increasing in Bloom’s²⁵ higher order thinking skills) to highlight what they learner needs to do. For example, sections like: Learn (readings, case studies), Apply (case studies, interactive scenarios, quizzes) and Create (group tasks, discussion boards, independent tasks that mirror the final assessment). By providing appropriately rigorous tasks that start within reach of the learner and then increase in difficulty, learners will be scaffolded as they learn²⁶. This structured and consistent approach supports established learning design theory of compartmentalising content into manageable chunks²⁷.
Usability	<ul style="list-style-type: none"> Learners tend to expect easily navigable, clear (in terms of instructions for use and general layout) design. In a number of the university surveys examined, common learner frustrations were articulated around course pages being “clunky”, inconsistency from one module page to the next (in terms of where resources were accessed), and having technical/reliability issues. 	<ul style="list-style-type: none"> A clear and consistent navigation should be used to ensure that the course is easy for learners to use²⁸. Intuitive design signals (e.g. button placement, iconography, headings, layout of the page etc.) should be used to reduce the amount of instruction text needed. Pearson’s Student Advisory Board preferred courses with clear navigation paths, no scrollbars and clear instruction text²⁹. The VLE page layout should be carefully thought through by an instructional designer and art director to enable an optimal learning experience. White space should be used to reduce cognitive overload³⁰.

²⁴ Nielsen, J. (2001). Jakob Nielsen on e-learning/Elearningpost. Online archive available at: [http://www.elearningpost.com/features/archives/001015.asp].

²⁵ Churches (2015), Blooms digital taxonomy, Educational Origami, Available online: <http://edorigami.wikispaces.com/Bloom%27s+Digital+Taxonomy>

²⁶ Pearson Learning Design principles (2016) Learning Design, Available online: <https://heuk.pearson.com/products-and-services/course-development/learning-design.html>

²⁷ Gagné, R. M., Briggs, L. J., & Wager, W. W. (1992). Principles of instructional design (4th ed.). Forth Worth, TX: Harcourt Brace Jovanovich College Publishers.

²⁸ Nielsen, J. (2001). Jakob Nielsen on e-learning/Elearningpost. Online archive available at: [http://www.elearningpost.com/features/archives/001015.asp].

²⁹ Pearson Student Advisory Board (2016) Focus Group interviewed by Alyssa Hampton and Helen Lapwood.

³⁰ Bozart, J. (2010) Nuts and Bolts: Brain Bandwidth - Cognitive Load Theory and Instructional Design, Available online: <http://www.learningsolutionsmag.com/articles/498/nuts-and-bolts-brain-bandwidth---cognitive-load-theory-and-instructional-design>

		<ul style="list-style-type: none"> • Embed all content within one page where possible, reducing the amount of 'clicks' needed to get to content. Pearson's Student Advisory Board liked content to be grouped into sections, but disliked too many clicks to reach content³¹. Therefore, a balance must be achieved. VLE page setup can be adapted to include accordion menus, hover states and reveal boxes to complement both preferences. • Ensure that scrolling is limited where possible. Instructional designers are split on this suggestion at the moment because of the ease of scrolling on smartphones and tablets. Since desktops and laptops are used most, scrolling is not as user friendly. Thus, decisions between paging and scrolling need to be made on a case-by-case basis. • Use hyperlinks in text to link to readings and activities so all assets are accessed centrally. Whenever possible, do not link out to new tabs or windows where learners lose where they are, rather keep learners in the course.
<p>Accessibility (universal design standards, compatibility, connectivity)</p>	<ul style="list-style-type: none"> • In terms of accessibility (outside of the required standards around access for visually impaired/otherwise disabled learners) there was general feedback that resources should be accessible anywhere. One university survey pointed to an apparent lack of awareness (on learners' parts) around where they could physically access certain resources owing to licensing restrictions – though this should not be a problem for online learners as the expectation is that they will be off-campus and so any resources used within the course should be available irrespective of location. 	<ul style="list-style-type: none"> • An education provider has a duty to make reasonable adjustments to make sure disabled learners are not discriminated against. This includes "indirect discrimination", e.g. only providing application forms in one format that may not be accessible³². Pearson has a standard of accessibility requirements that we test against (e.g. colour contrast, transcripts to all audio/video, not using the word 'click' as some learners will use the tab system in a screen-reader rather than click on the screen). • All resources should be available online as online learners are not able to rely upon borrowing texts from a physical library.

³¹ Pearson Student Advisory Board (2016) Focus Group interviewed by Alyssa Hampton and Helen Lapwood.

³² UK Government (2015) Disability Rights, Available online: <https://www.gov.uk/rights-disabled-person/education-rights>

How do learners want to gain employability skills?

Evidence is categorised into themes (embedded competencies, employer interaction) that cover internal and external employability provisions.

A general point on employability: Improving career outcomes/ skills is regularly cited as one of the most important motivations for postgraduate learners (either on-line or on-campus) to embark on a course. Thus, equipping learners with the skills to progress in their careers will be critical to meeting learner expectations.

Theme	Market Research Findings	Suggested Learning Design Implications
Embedded competencies within curriculum	<ul style="list-style-type: none"> Koper's study identifies strong (>4 on a 5 point Likert Scale) preference among registered online learners for courses to offer "Practical Skills" (4.03) and "Practical Relevance" (4.31) within the curriculum³³. Dixon's respondents identified "application" activities (applying curriculum concepts to industry case studies) as being engaging³⁴. 	<ul style="list-style-type: none"> Embed the graduate competencies in the course by aligning them against module outcomes. As learners achieve academic goals they should also see progress against the competencies in a format they can then share with future employers (e.g. badges, online curriculum vitae). Use interactive scenarios and case studies to give learners 'real-world' experiences³⁵. To promote critical thinking, design scenarios and case studies with tasks that require learners to objectively analyse issues and make judgements³⁶. By including employability links in the course structure/design, institutions will be meet Government requirements to provide learners with "transferable work readiness skills that businesses need"³⁷.
Employer interaction	<ul style="list-style-type: none"> 59% of Aslanian respondents rate "optional internships" as 4 (30%) or 5 (29%) on a 5 point Likert Scale (where 5 is "very attractive" and 4 is "attractive")³⁸. There is little coverage around this area specifically, however, postgraduate taught programmes (online or on-campus) with close ties to employers see learners benefiting. Given well-documented learner motivation around improving employability, it is suggested that anything that enhances ties to business, network building and real-world context would be of benefit and a strong message in promoting programmes. 	<ul style="list-style-type: none"> Link content to real employers by asking them to select appropriate case studies (or write new ones), suggest interactive scenario storylines and decision points, and give advice about suitable competency mapping against objectives. Ask employers to record short audio/video module introductions to help learners see how module applies to future employment. Enlist employers as 'guest speakers' during live online seminars and offer feedback on learners' presentations, discussion board posts, etc.

³³ Koper (2015) *How Do Learners Want to Learn in Online Distance Education? Profiling Learner Preferences*, International Review of Research in Open and Distributed Learning, Vol. 16, No. 1

³⁴ Dixon (2010) *Creating Effective Learner Engagement in Online Courses: What do Learners Find Engaging?* Journal of the Scholarship of Teaching & Learning, Vol 10, No. 2

³⁵ Lombardi (2007) Paper 1 By Marilyn M. Lombardi Edited by Diana G. Oblinger ELI, available online: <https://net.educause.edu/ir/library/pdf/eli3009.pdf>

³⁶ Pearson Learning Design principles (2016) Learning Design, Available online: <https://heuk.pearson.com/products-and-services/course-development/learning-design.html>

³⁷ Department for Business Innovation & Skills (2015) Teaching Excellence, Social Mobility and Student Choice White Paper 2015 [Online] CM9141. London. The Stationery Office. Available from: <https://www.gov.uk/government/consultations/higher-education-teaching-excellence-social-mobility-and-student-choice>.

³⁸ Aslanian Market Research with The Learning House *Online College Students 2015*

How much support do learners want?

Evidence is categorised into themes (technical support, skills/online learning support) of particular interest to the higher education institutions.

Theme	Market Research Findings	Suggested Learning Design Implications
Technical Support	<ul style="list-style-type: none"> No research was found that specifically addresses the optimum amount of support a learner expects for technical support. Instinctively, it is suggested that it would be very hard for a learner to quantify precisely how much support is required as sufficiency depends on many variables. 	<ul style="list-style-type: none"> Offer technical support equivalent to the on-campus provision or involve Pearson’s technical support services to answer learners and instructors queries within the agreed timeframe. Ideally, technical queries are answered within 12 hours. Include a ‘learner orientation’ area (i.e. self-help built into the platform) for each module that talks learners through their weekly journey. This page should include instructions, screen-capture videos and a space for learner questions and answers. Pearson’s Student Advisory Board stated that this is a key element in helping them learn how to access their content³⁹. Ideally, a larger ‘Welcome to Online Learning’ short module would be created that could be assigned to learners before they start their online programme. This orientation module would help learners prepare to start their course and give them time to become familiar with the online layout before the course begins.
Skills/online learning support	<ul style="list-style-type: none"> No research was found that specifically addresses the optimum amount of support a learner expects for skills/learning support. Instinctively, it is suggested that it would be very hard for a learner to quantify precisely how much support is required as sufficiency depends on many variables. 	<ul style="list-style-type: none"> Online instructors should be very clear about their availability times, communication methods, and amount of time learners can expect them to reply. Ideally, learners’ questions or emails to an instructor should be answered within 48 hours. Since online learners should be provided with the same support as those on campus learners, support classes (e.g. for learners with English as an additional language) should be offered. Any other support areas (e.g. library, career support) should also be accessible online.

³⁹ Pearson Student Advisory Board (2016) Focus Group interviewed by Alyssa Hampton and Helen Lapwood.

How will learners access the course?

Evidence is categorised into themes (always online, downloadable content, devices) to report online learning's needs for connectivity and compatibility.

Theme	Market Research Findings	Suggested Learning Design Implications
Always online	<ul style="list-style-type: none"> No research was found that specifically addresses online/offline course access. Instinctively, it is suggested that it would depend on the consistency of learners' online connection. Learners working in locations where online access is stable are more likely to find an online-only course suitable for their expectations. 	<ul style="list-style-type: none"> The demand of online courses has reached unprecedented levels and it is widely acknowledged that online learning is as effective, if not better, than traditional face to face courses: "the overall finding of the meta-analysis is that classes with online learning (whether taught completely online or blended) on average produce stronger learner learning outcomes than classes with solely face-to-face instruction⁴⁰".
Downloadable content	<ul style="list-style-type: none"> No research was found that specifically addresses downloadable content. The Aslanian report indicates that 43% of online learners expressed a preference for electronic materials, 33% prefer paper-based reading materials, and the remaining 23% expressed no preference⁴¹. Nielsen cites a rise (from 69% to 71%) of eBook users that downloaded complete eBooks free of charge in 2015/16⁴². It is important to note that this research focused on the financial aspect rather than physical downloading aspect. One statistic about physicality of content can be inferred when Nielsen cites learners' perspective on print versus eBooks; for "ease of holding", 58% of respondents preferred eBooks and 28% preferred print⁴³. Through inference, it is deduced that if learners expect to download content, it is more likely that the expectation stems from the inconsistency in online connection than the desire to hold the resource. Learners working in locations where online access is unstable are more likely to require content be downloaded so they are able to work without a connection. 	<ul style="list-style-type: none"> Make all content available offline for two reasons: 1) learners do not need to have a Wi-Fi signal to access their learning and 2) learners in areas with restricted Wi-Fi signal are not disadvantaged. At minimum, we suggest trying where possible to make content available offline (e.g. readings) but not compromising the design/technology of the course to do so. Learners should be made aware of the Wi-Fi/download capabilities of the course when attempting to register. Ensure learners can buy print copies of eBooks if they wish to. Where possible, all content should be accessible without an internet connection (e.g. readings). Complementary plugins can be integrated to give the VLE this additional function (e.g. the mobile app for the reading platform Vital Source allows learners to download custom eBooks for reading offline. All readings/case studies/extended study materials should be available online for an online course. Custom Pearson eBooks collate together selected pieces into a bespoke online book for each module. This allows learners to access all of their material in one place. It also allows the VLE build team to automatically hyperlink to the specified reading, making it a seamless learning experience for learners.

⁴⁰ Means, Toyama, Murphy, Bakia, & Jones (2010) U.S. Department of Education 'Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies', [online] Available <http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>

⁴¹ Aslanian Market Research with The Learning House [Online College Students 2015](#)

⁴² Nielsen. Students' Information Sources in the Digital World, 2015/16. January 2016.

⁴³ Nielsen. Students' Information Sources in the Digital World, 2015/16. January 2016.

Devices

- Nielsen cites learners' answers to "Which devices do you use to read digital resources to help with your course?"⁴⁴ Results show 12% of learners use a desktop and 73% use a laptop most while 34% use a desktop and 85% use a laptop at all. Between 2013 and 2015, learners using desktops at all increased 85% to 94% and laptops increased 77%-85% while learners using desktops most increased 81% to 86% and laptops increased 69%-73%.
- In the same Nielsen study, results show that 2% use a smartphone and 11% use a tablet more than any other device while 44% use a smartphone and 33% use a tablet among other devices⁴⁵. Between 2013 and 2015, learners using smartphones among other devices increased 20% to 44% and tablets increased 19%-33% while learners using smartphones more than any other device decreased 3% to 2% and tablets being used more than any other device increased 10%-11%.
- Learners are predominantly accessing their online course on desktops and laptops likely because some tasks are easier to do on a computer than a mobile device (e.g. creating a presentation to share with your peers). Therefore, content need not be designed as mobile first (mobile as the initial form of access) because that design can make the course look less aesthetically pleasing or functional on a desktop or laptop, which are the devices most widely used by learners.
- Increasingly, learners are accessing content on mobile and tablets in addition to desktops and laptops. Therefore, all content should be mobile friendly (all content can be accessed on a mobile).
- When designing course features, keep in mind the following four common behaviours of mobile users: engaging in short activity bursts, moving between devices quickly, multi-tasking and accessing content at peak times of the day⁴⁶.

⁴⁴ Nielsen. Students' Information Sources in the Digital World, 2015/16. January 2016.

⁴⁵ Nielsen. Students' Information Sources in the Digital World, 2015/16. January 2016.

⁴⁶ Lentz, M. & Carson, B. (2012) Designing Content for Multiple Mobile Devices, Learning Solutions Magazine, Available: <http://www.learningsolutionsmag.com/articles/1018/designing-content-for-multiple-mobile-devices>. Accessed: 17.11.15

What are learner expectations regarding specific aspects of their learning journey?

Evidence is categorised into themes (content types, progression, and assessments) of particular interest to higher education institutions.

Theme	Market Research Findings	Suggested Learning Design Implications
Content types: proportion of videos, interactives, readings, etc...	<ul style="list-style-type: none"> None of the literature reviewed provided a quantitative assessment of the balance of types of content. However, a number provided indications as to what type of content or activities were preferred more strongly than others, which may provide a rubric for determining the appropriate balance. Dixson points to the positive effect “active” tasks/exercises have on learner engagement, and the general positive feedback around discussion boards and other interactive activities features throughout many of the papers examined⁴⁷. That said, there isn’t evidence to support the view that learners find more traditional methods (albeit delivered electronically) such as lectures or readings off-putting. Given the positive response to including a variety of content types it is suggested that ensuring such variety exists at some level would be beneficial. In terms of video content, Hare Bork and Rucks-Ahidiana found that learners respond favourably to most video, including YouTube and other outside sources, but were most responsive to rich media produced by the instructor⁴⁸. 	<ul style="list-style-type: none"> Although a range of activities should be included, it is important not to overwhelm the learner with content without purpose. Gagne’s levels⁴⁹ provide an excellent check-point to use when designing, but they should not dominate the design or control the course. Instead, the learning goals and objectives should come first; “Ideally, you should prepare course goals and learning objectives before implementing the nine events (the goals and objectives will actually help situate the events in their proper context). The nine events of instruction can then be modified to fit both the content to be presented and the students’ level of knowledge.”⁵⁰ Instructional alignment⁵¹ should be used to ensure that programme, module and topic objectives are aligned with formative/summative assessment tasks. Activities and content should be carefully aligned in the same way. Ensure that all modules are personalised by the tutor – this can be done simply through either a written, audio or video introduction on the module homepage. A picture of the module lead/tutor next to their contact details also helps learners feel more connected.
Progression: self-paced or managed movement through the course	<ul style="list-style-type: none"> The Aslanian report identifies three types of instruction⁵²: <ul style="list-style-type: none"> <i>Tutorial</i> – learners complete a series of learning activities at their own pace with an instructor 	<ul style="list-style-type: none"> It is best practice to organise content into weekly sessions to limit cognitive overload, fit learners’ lives and avoid the possibility of learners becoming overwhelmed with content⁵⁴. However, most online learners want to be able to control their

⁴⁷ Dixson (2010) [Creating Effective Learner Engagement in Online Courses: What do Learners Find Engaging?](#) Journal of the Scholarship of Teaching & Learning, Vol 10, No. 2

⁴⁸ Hare-Bork & Rucks-Ahidiana (2013) [Role Ambiguity in Online Courses: An Analysis of Learner & Instructor Expectations](#) CCRC Working Paper No. 64

⁴⁹ Gagné, R. M., Briggs, L. J., & Wager, W. W. (1992). Principles of instructional design (4th ed.). Forth Worth, TX: Harcourt Brace Jovanovich College Publishers.

⁵⁰ Northern Illinois University, Gagné’s Nine Events of Instruction, Faculty Development and Instructional Design Center, Available online: http://www.niu.edu/facdev/resources/guide/learning/gagnes_nine_events_instruction.pdf

⁵¹ Pearson Learning Design principles (2016) Learning Design, Available online: <https://heuk.pearson.com/products-and-services/course-development/learning-design.html>

⁵² Aslanian Market Research with The Learning House [Online College Students 2015](#)

⁵⁴ Bull, B (2013) [Eight roles of an effective online teacher](#), Available at: <http://www.facultyfocus.com/articles/online-education/eight-roles-of-an-effective-online-teacher/> (Accessed: 11.12.15).

	<p>available to answer questions and then complete assignments and/or assessments.</p> <ul style="list-style-type: none"> ○ <i>Independent study</i> – learners study independently at their own pace with resources provided by the university and then complete assignments and/or assessments. ○ <i>Instructor-led</i> – learners complete a series of instructor-led learning activities and discussion forums with a class of other learners and then complete assignments and/or assessments as scheduled. <ul style="list-style-type: none"> • The report showed no clear preference for any one of these instruction types, with a fairly even split among all three: <i>tutorial</i> (37% - up from 32% in 2013), <i>independent study</i> (34% - up from 33% in 2013), and <i>instructor led</i> (29% - down from 35% in 2013). The first two relate to self-paced learning whereas the third most-closely resembles traditional teaching approaches. This report would therefore suggest that there is a larger and growing preference for self-paced learning approaches among online learners. • This finding appears to back up an assertion made by Paecther et al (citing Pintrich) that as e-learning learners generally have choices regarding when, where and how they study: “such self-regulation of learning is an important characteristic that contributes to learners’ motivation”⁵³. 	<p>own pace throughout that week. Encourage learners to create a weekly learning path to help them organise their time.</p> <ul style="list-style-type: none"> • Provide learners with an inbuilt tool to help them ‘mark as complete’ activities and tasks, which can then be presented to them in a visual progress bar. This will help them manage their time and track their progress more efficiently⁵⁵. Pearson’s Student Advisory Board all expressed a desire for a progress bar⁵⁶, stating that it helped them to keep track of how much work they had left to do each week. It also helped them feel more motivated and less overwhelmed. • Ensure all activities/tasks have approximate timing recommendations next to them to allow learners to plan their time. Again, this was highlighted as a useful feature by Pearson’s Student Advisory Board⁵⁷.
<p>Assessment: formative/low stakes or summative/high stakes tasks</p>	<ul style="list-style-type: none"> • Preferences around assessments, specifically for online learners, have been difficult to discover. • It is suggested that some of the other themes outlined throughout may come in to play with regards assessment types and frequency. For example, the demand for regular feedback could possibly be 	<ul style="list-style-type: none"> • Assessment should be both summative and formative⁶⁰. At least some of the formative tasks should mirror the format of the summative, to give learners a realistic assessment experience. • Some feedback can be prepared in advance: quizzes can be pre-written to automatically give instant feedback and

⁵³ Paecther, Maier & Macher (2010) *Learners Expectations of and Experiences in E-Learning* Computers and Education, Vol. 54, No. 1

⁵⁵ Pearson Learning Design principles (2016) *Learning Design*, Available online: <https://heuk.pearson.com/products-and-services/course-development/learning-design.html>

⁵⁶ Pearson Student Advisory Board (2016) Focus Group interviewed by Alyssa Hampton and Helen Lapwood.

⁵⁷ Pearson Student Advisory Board (2016) Focus Group interviewed by Alyssa Hampton and Helen Lapwood.

⁶⁰ Pearson Learning Design principles (2016) *Learning Design*, Available online: <https://heuk.pearson.com/products-and-services/course-development/learning-design.html>

	<p>facilitated by the inclusion of relatively frequent formative assessments.</p> <ul style="list-style-type: none"> • Further, taking the suggested need (Dixson⁵⁸, Koper⁵⁹) for active and collaborative exercises to enhance engagement may provide useful context in terms of considering what types of formative assessment could be deployed. 	<p>assessment marking rubrics and be provided and used as marking guides.</p> <ul style="list-style-type: none"> • Timely, personalised feedback should be built into all courses to ensure learners get the necessary information they need to improve. • VLE tools that track assessment (e.g. gradebook) can be used by module leaders to monitor and intervene when learners are struggling. A range of assessment tools can be used to assess learners. For example, online portfolios, plagiarism check plugins (e.g. TurnItIn), online exams (monitored), audio, video and presentation submissions. • Prior assessment should be used to help learners establish their previous understanding and then focus their study. Course Design can build in automatic adaptive learning experiences based on learnt knowledge, aptitudes and/or cognitive abilities⁶¹. When considering including adaptive learning, the level of tutor interaction and class collaboration needs to be carefully considered. For example, a truly adaptive task that allows a learner to take a test to identify topics that they don't need to do as they have demonstrated skills is a very efficient way for learners to progress (a mastery model), but it does make group collaboration and networking more challenging. It also makes staff interaction difficult as learners can't be grouped into cohorts. The course subject matter and institution requirements should dictate whether adaptive learning processes are appropriate.
<p>Progress recording through the course: individual or relative to other participants</p>	<ul style="list-style-type: none"> • None of the literature reviewed provided a quantitative assessment of learners' preferences on progress recording. 	<ul style="list-style-type: none"> • To enhance learners' sense of satisfaction when they finish a task, add a 'mark to complete' button at the end of each task. • To help learners self-regulate time, display the percentage of learners' completed tasks visually through a progress bar on each page. • If appropriate, a 'participation leaderboard' can be used to rank learners by the amount of activities/tasks they complete each week. This dashboard is cited to create excitement and a

⁵⁸ Dixson (2010) *Creating Effective Learner Engagement in Online Courses: What do Learners Find Engaging?* Journal of the Scholarship of Teaching & Learning, Vol 10, No. 2

⁵⁹ Koper (2015) *How Do Learners Want to Learn in Online Distance Education? Profiling Learner Preferences*, International Review of Research in Open and Distributed Learning, Vol. 16, No. 1

⁶¹ Pearson Learning Design principles (2016) Learning Design, Available online: <https://heuk.pearson.com/products-and-services/course-development/learning-design.html>

sense of accomplishment⁶². By distancing the leaderboard from achievement, learners are instead encouraged to be active rather than discouraged by any gaps in their understanding.

- Progress records such as 'mark to complete', progress bars and leaderboards need to be strategically selected based on the course's learner personas. Making an informed decision here is particularly important because the same feature can have the opposite impact on learners. This is because motivations are complex and dependent on learners' ever-changing characteristics and preferences which vacillate between intrinsic ("motivation to engage in an activity for its own sake") and extrinsic ("motivation to engage in an activity as a means to an end")⁶³.
- Competition has been known to demotivate learners, thus hindering learning⁶⁴. However, when appropriately selected, adding a sense of competition to the course has sparked increases in student initiative and public performance⁶⁵ as well as higher quiz scores and learning efficiency⁶⁶.

⁶² Wankel and Blessinger (2012) Increasing Student Engagement and Retention using Immersive Interfaces: Virtual Worlds, Gaming, and Simulation, Cutting-Edge Technologies in Higher Education, Vol 6C

⁶³ Deci & Ryan, 2000; Lepper, Corpus, & Iyengar, 2005; Pintrich, 2003; Schunk, Meece & Pintrich, 2014

⁶⁴ Growth Engineering (2015) Gamification: Is Competition Engaging or Demotivating? <http://www.growthengineering.co.uk/gamification-is-competition-engaging-or-demotivating/>

⁶⁵ Student Competitions (2014) How Competition is Turning Students Proactive, Available online: <http://studentcompetitions.com/posts/how-competition-is-turning-students-proactive>

⁶⁶ Worm and Buch (2014) Does Competition Work as a Motivating Factor in E-Learning? A Randomized Controlled Trial, PLOS, Available online: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085434>