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An Online Course Design Checklist: Development and Users' Perceptions

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Abstract

This study examines users' perceptions of an online course design checklist. We created the Online Course Design Checklist (OCDC) to help highlight very basic criteria that may improve the quality of online courses. The OCDC highlights criteria that should not be ignored during online course development. It is based on components of established instructional design principles and existing online course design evaluation instruments. To understand course designers' perception of the OCDC, we surveyed nineteen current and prospective online instructors on their use of it. Participants found the OCDC facilitated online course design by providing criteria to consider before, during, and after online course design.

Keywords: checklist, course design, evaluation, instructional design, quality

Introduction

How does course design impact the quality of an online course? Course design is the "anchor around which the class (and learning) happens" (Koehler & Mishra, 2005, p. 135). Online courses may be designed by instructional designers, course instructors, or a combination of professionals. With the growth of online learning, instructors have been recruited from traditional classrooms to design and teach online courses (Seaman, 2009). A survey of chief online education officers indicated "relatively few institutions require faculty to partner with instructional designers to build or revise online courses" (Garrett & Legon, 2017, p. 11).

Unfortunately, untrained instructors often simply try to create an online version of a traditional course, taking little account of the differences in learning environments (Johnson, Mejia, & Cook, 2015). Even instructors who have experience designing courses are often pressured to "'get something online" before the start of a new term" (Baldwin, 2017, p. 84). To design an effective online course, one must maximize user satisfaction and encourage learning outcomes in a format that is different from traditional education.

Support is available. Online course designers may rely upon course evaluation instruments to improve course quality (Kleen & Soule, 2010). There are many online course design evaluation instruments created by individual schools, learning companies, consortiums and publishers (Baldwin, Ching, & Hsu, 2018; Mathes, 2017). The Online Learning Consortium recently partnered with the State University of New York to offer free downloads of the Open SUNY Course Quality Review Rubric (OSCQR) to the public (Mathes, 2017). Other evaluation instruments are subscription based (e.g., Quality Matters), or limited to use by specific institutions (e.g., California Community Colleges' Online Education Initiative (OEI) Course Design Rubric). Evaluation instruments help course designers improve course structure by drawing attention to the design and navigation of the course (Choi & Ahn, 2010; Hoffman, 2012). Evaluation instruments offer instructors the ability to evaluate their course design by establishing standards and providing a clear understanding of what is expected to attain success (Simpson, 2012).

However, the breadth of these evaluation instruments may be daunting to instructors. OSCQR has "50 instructional design and accessibility standards integrated into the rubric" (Online Learning Consortium, 2017, para. 2). A review of national and statewide evaluation instruments identified the average course design evaluation instrument contains

over six sections and 59 criteria (Baldwin et al., 2018). While these evaluation instruments serve a valuable function, there is an opportunity to simplify the process and offer instructors creating online courses an easy to use course design checklist to help improve the quality of their online courses.

To address this need, this study proposes a design checklist that highlights criteria that may improve the quality of online course. Research supports that a checklist aids in the development of online course content (Parscal & Riemer, 2010). We distilled important research- based elements from national and state evaluation instruments, and multimedia and instructional design research to develop a single-page online course design checklist. We named this checklist the Online Course Design Checklist (OCDC). We attempted to include items that are critical (e.g., ensuring navigation is clear) as well as more mundane items (e.g., running spell check). The purpose of the OCDC is to provide support—or at least nudges—for the busy professional designing an online course. Optimally, the OCDC would require little time to incorporate into the design process and use terms that would be easy to understand and useful to course designers with various course design skill levels. An evaluation of the OCDC provided by a group of current or future online course instructors is presented and suggestions for future research are discussed.

Literature Review

Online Course Quality

With the growth of online education, there has been an increased focus on the process of designing and delivering quality online courses and programs (Chao, Saj, & Hamilton, 2010; Choi & Ahn, 2010; Mariasingam, 2005; Yang & Cornelious, 2005). However, quality in online education is a fluid concept. It is often based on the perspective of the entities involved and the evaluation tools used. Different types of organizations have been involved in establishing quality standards for online courses, including accrediting commissions (e.g., The American Council on Education's Principles for Distance Learning in a Learning Society) and state and regional organizations (e.g., The Southern Regional Education Board [SREB] Checklist for Evaluating Online Courses). Nonprofit organizations and educational technology companies have established standards as well (e.g., Quality Matters, Blackboard Exemplary Course Program). Faculty members at different colleges and universities have also promoted course quality by establishing evaluation instruments (e.g., the California State University Quality Learning and Teaching Rubric [QLT]).

Evaluation instruments (i.e., course design rubrics and checklists) have different purposes. For example, Quality Matters, a frequently referenced evaluation instrument, "certifies the design of [mature] courses as meeting shared standards of best performance" (California State University, 2015a, para. 1). Blackboard's Exemplary Course Program is used to share best practices and rate the design, interaction, assessment, and learner support in mature courses (Blackboard, 2012). The California Community College's Online Education Initiative (OEI) Course Review is used to ensure online courses in the California Community College system conform to federal and state regulations and to promote student success based on standards established for content presentation, interaction, assessment, and accessibility (California Community Colleges Chancellor's Office, 2016). OSCQR is targeted at continuous improvement of the quality and accessibility of the course design of new and mature online courses (Online Learning Consortium, 2015). QLT is used to support and identify exemplary practices for design and delivery of mature courses (California State University, 2015b).

These evaluation instruments can aid the online course design process for online instructors. However, the plethora of standards from these instruments may be overwhelming for instructors who lack the time to find and use them when they need to design an online course quickly, and who may not have an instructional design background to parse the reams of information.

Rationale for the Online Course Design Checklist

This study proposes a checklist that highlights criteria that may improve the quality of online course design. It builds on prior research identifying the importance of quality guidelines in online education (Chao et al., 2010; Choi & Ahn, 2010; Yang & Cornelious, 2005) but attempts to provide a concise solution that is simple to use and understand. Checklists are used in a variety of professions (e.g., construction, transportation, medicine) to highlight very basic items that should always happen. An effective checklist can encourage the user to include items that are critical to the success of a project (Gawande, 2010). Research has determined one-page checklists are the most effective since these

tools focus on only the most important items that should never be missed (Gawande, 2010). In addition, experts suggest restricting items within each part (i.e., phase) of the checklist to five to nine items, which is the limit of working memory (Gawande, 2010).

Research supports the use of checklists in formative evaluation. Formative evaluation represents a way to determine the revisions to be made in materials (Mann, 2006). With formative evaluations the focus is on improvement. For example, Weschke and Canipe (2010) described the use of a formative checklist to guide faculty in online teaching. The researchers found that a formative checklist served as a helpful balance between student evaluations and administrator reviews, since a checklist avoids bias (Weschke & Canipe, 2010). Faculty members reported preferring a checklist over other types of evaluation instruments. In addition, faculty use of a checklist in Weschke and Canipe's (2010) study created a culture of quality improvement. Oliver (2000) notes formative evaluations (e.g., checklists) help recognize and document examples of good practice and identify areas for improvement.

Checklists have been identified as useful screening devices for evaluating online course design (Herrington, Herrington, Oliver, Stoney, & Willis, 2001; Hosie, Schibeci, & Backhaus, 2005; Oliver, 2000). Checklists help ensure that "delivery is sound and [can be used] to identify deficient aspects" (Hosie et al., 2005, p. 545). Checklists also help provide "a detailed description to the user of the strengths and weaknesses of an online unit" (Herrington et al., 2001, p. 265). Instructional designers at the University of Nebraska at Kearney (UNK) developed a checklist to ensure quality assurance, after reviewing other existing options such as Quality Matters Rubric and the Quality Online Course Initiative Rubric (QOCI) (McGahan, Jackson, & Premer, 2015). They believed that a checklist was a more positive way of guiding the faculty because a checklist showed faculty where they might have missed items that would contribute to a quality course. Seventeen faculty members participated in the testing phase of the checklist.

The reaction was positive, and faculty reported the most common areas that the checklist identified were providing consistent navigation cues and chunking course material. A common issue was of length; faculty felt the instrument was still too long (at three pages) to be used for self-evaluation of online course design.

Development of the Online Course Design Checklist

Conceptually, designing an online course design checklist relates to Patton's utilization- focused evaluation (2012) process. Patton suggested it is important to match the evaluation design to the evaluation's purpose, resources, and timeline to optimize use. With this in mind, we identified the purpose of the OCDC as an instrument to encourage better design by determining "never miss" items important to course design. We focused on creating a tool to use during course design as an aid to the process. We also wanted the OCDC to be simple enough that a layperson (e.g., an instructor) could use it without an instructional design background or formal training. Finally, we wanted the OCDC to be easy to use quickly and freely available to the public.

Patton (2012) also suggested one must consider the utility, feasibility, propriety, and accuracy of the evaluation. To this end, one must design an evaluation instrument based on its actual use (in this case, as part of the process of online course design) and the intended users (instructors who design online courses). The OCDC's utility is to help course designers check off items important to offering better (i.e., higher quality) courses. While the task of creating an online course design checklist is feasible, it is a difficult task. This research is to be viewed as a conversational starting point. To this end we outlined our development process in hopes that others will join the discussion, evaluate the checklist, and suggest refinement. Ultimately, the evaluation should help people do things (Patton, 2003). It is our intent that the OCDC should help foster quality in online courses through a formative evaluation.

Research suggests checklists should contain items that help with memory recall (Thaler & Sunstein, 2008). As previously mentioned, checklists are used for adhering to critical steps in other fields. In crisis medical simulations the difference in missing critical steps was six percent using checklists, compared to twenty-three percent without a checklist (Arriaga et al., 2013). The proposed OCDC represents a collection of criteria that should be included when designing and developing an online course.

Selecting Checklist Criteria

The OCDC is presented below (Table 1) with each criterion numbered. In the following discussion we placed corresponding numbers to link the criteria found in our research to the criteria on the OCDC.

Table 1. *The Online Course Design Checklist*

Before	During	After
☐ Analyze learners to understand their knowledge base and interests (1)	☐ Chunk information into manageable lessons (4)	☐ Confirm course tasks measure what you want students to learn (11)
☐ Identify what will be covered in the course (2)	☐ Explain student engagement and expectations (5)	☐ Check that lesson navigation is intuitive (12)
☐ Identify measurable items that the students must be able to accomplish as a result of the course (3)	☐ Trigger interaction between student-student, student-instructor, student- content (6)	☐ Eliminate extraneous media and information (13)
	☐ Provide rubrics for assignments (7)	☐ Confirm all links work (14)
	☐ Optimize use of beneficial media (8)	☐ Run spellchecker (15)
	☐ Include opportunities for students to offer feedback regarding lesson format and content (9)	☐ Have peer/friend/colleague review work and identify any unclear material (16)
	☐ Identify contact information for instructor, technology help and student support services (10)	

We reviewed current evaluation instruments, and literature on multimedia and instructional design to develop the OCDC. There is a plethora of information available to help guide course design, for those who choose to research and seek resources. Trying to determine the criteria that should be included was guided by our experience as online students, instructors, and instructional designers. It was a subjective and difficult process and should be viewed as a starting point as we continue to revise and improve this instrument.

In an attempt to identify elements of importance we reviewed current evaluation instruments, focusing on instruments that have national or statewide influence, that were published after 2010, and are currently in use. The following online course evaluation instruments were reviewed as part of the research for the OCDC:

- Blackboard's Exemplary Course Program Rubric (2012)
- California Community Colleges' Online Education Initiative (OEI) Course Design Rubric (2016)
- The Open SUNY Course Quality Review Rubric (OSCQR) (2016)
- Quality Matters (QM) Higher Education Rubric (2016)
- Illinois Online Network's Quality Online Course Initiative (QOCI) (2015)
- California State University Quality Learning and Teaching (QLT) (2015b)

We coded the instruments, starting with the OEI rubric (since it was the shortest). Criteria were identified and then the other evaluation instruments were coded against these criteria by comparing verbiage used in the instruments. Through this process we were able to identify criteria that appeared frequently in the instruments. We identified the following criteria that were found in all the reviewed evaluation instruments (throughout this section the numbers in parentheses next to various criteria indicate a corresponding checklist item):

- Objectives are available (2)
- Expectations regarding quality of communication and participation are provided (5)
- Policies are stated for behavior expectations (5)
- Student-to-student interaction is supported (6)
- Communication and activities are used to build community (6)
- Rubrics for graded assignments are provided (7)
- Technology is used to promote learner engagement/facilitate learning (8)
- Instructor contact information is stated (10)
- Links to institutional services are provided (10)
- Assessments align with objectives (11)
- Navigation is intuitive (12)

We made a list of these criteria to serve as the basis of the OCDC. Accessibility was also mentioned on all of the instruments but this was not included on the OCDC due to the difficulty of determining accessibility.

We added information that was found in some but not all evaluation instruments when they seemed important components of online course design to us. As former online students, we thought it was valuable to be able to provide feedback to the instructor about a course (9). Most of the state and national evaluation instruments include this criterion. We added basic housekeeping items "confirm all links work" and "run spellchecker." These items were found only on a few instruments (e.g., "Course is free of grammatical and spelling errors" [OSCQR] (15); "Course has no broken links" [QOCI]) (14), but providing a course that is free of spelling errors with working links were important elements to us.

While the evaluation instruments provided valuable criteria we reviewed literature on multimedia course design to consider other factors that may be important. Clark and Mayer (2011) highlighted the importance of the segmenting principle, in which a course designer breaks a lesson into segments or chunks (4). Several of the evaluation instruments also suggest information should be chunked into manageable lessons (e.g., Blackboard's Exemplary Course Program Rubric, QOCI, OSCQR) (4). This helps learners manage the learning of complex material without overloading the learner's cognitive system (Clark & Mayer, 2011). In addition, Clark and Mayer (2011) explained the importance of eliminating extraneous words, images, and audio is to "avoid adding any material that does not support the instructional goal" (p. 151) to prevent overloading learners' and their limited cognitive resources (13). As a result, we added "chunk information into manageable lessons" and "eliminate extraneous media and information" to the OCDC criteria.

Information from research with instructional designers was reviewed to provide expert knowledge that might offer insight beyond the evaluation instruments. York and Ertmer (2011) identified a core set of heuristics used by experienced instructional designers. The top heuristics identified were "know your learners/target audience" (1) and "determine what it is you want your learners to perform after the instructional experience. What is the criterion for successful performance?" (p. 848) (3).

We also considered instructional design models. The final phase of the ADDIE model, evaluation, involves a course being evaluated and revised (16). In the OCDC, we added, "Have peer/friend/colleague review work and identify any unclear material." This highlights the importance of evaluation for the online course designer. This criterion also encourages the exchange of ideas and peer support for online course development.

Online courses offer the potential to provide students with unique learning opportunities through the use of technology. Blackboard's Exemplary Course Program Rubric states, "Technologies are used creatively in ways that transcend traditional, teacher-centered instruction" (8). We added "optimize use of beneficial media" to try to avoid the design of online courses that are limited to text or feature PowerPoint or video lectures. Online courses offer the ability to transform learning and we were hoping by including this nudge, course designers might consider additional strategies for presenting content.

The criteria we gathered for the OCDC were not an all-inclusive list, but a starting point to encourage better course design. Research suggests checklists should include items that are the minimum expected steps in a complex process (Thaler & Sunstein, 2008). Checklists are not teaching tools but tools with the intent to prevent errors of omission (Gawande, 2010). The current checklist was designed to encourage course designers to include practices that have the most impact and also the items that may be overlooked. In developing the OCDC, we aimed to help remind course designers of criteria that they may have learned through previous experience but they may forget to follow due to time constraints, distractions, or the process of using new technology. The OCDC is not meant to replace instructional design models, procedures, or existing evaluation instruments, but to help nudge the user towards better online course design.

Checklist Design and Development

Once the criteria were assembled we wanted to organize the OCDC in a manner similar to checklists used by doctors and pilots, in which there are pause points embedded in the process (Gawande, 2010). In dividing up the work in this manner, the online course designer is encouraged to pause and reflect upon his or her work. The ADDIE model was used to help identify pause points in the course design process. The ADDIE model identifies the five key phases of course design as: analysis, design, development, implementation, and evaluation (Huguet, 2008). In developing the OCDC, we separated the criteria into these phases to help structure course design. As our work progressed, ADDIE's five phases were grouped into the categories of "before course design" (analysis phase), "during course design" (design and development), and "after course design" (implementation and evaluation).

As we divided the criteria into the three phases ("before" "during" "after") we limited each phase to five to nine items to prevent overloading working memory (Gawande, 2010). The OCDC was intentionally limited to a single page to promote completion. In addition, we tried to use simple words and language that was easy to understand to facilitate use among all experience levels.

The OCDC evolved over several iterations. For example, phrases were changed to better communicate criteria. Many, many changes were made in an effort to create an easy to understand checklist that contained essential criteria. In the spirit of continued iterations, the latest OCDC can be found at https://goo.gl/APL8bN.

Method

This study examines users' perceptions of the usefulness of the OCDC. The research question that guided this study was: How do course designers perceive the OCDC? It was our intent to provide insights on a simple tool that may help guide online course design, in hopes of raising the quality level of online courses.

Participants and the Context

Graduate students in an online master's program in a Northwestern state university in the United States were recruited for this study. As part of their coursework, these students were asked to design an online lesson to be hosted in a learning management system. The students were asked to use the OCDC as part of their lesson design process and the OCDC was made available to the students within their Moodle classroom. After students completed the online lesson design task, they were provided with information about the study and given the option to participate in the study. The students were informed that their grades would not be impacted by refusal to participate and all participants' identities were kept confidential from the course instructor.

Nineteen students agreed to participate and completed an online survey asking their perceptions of the OCDC. The participants were recruited due to convenience (i.e., the researchers had ready access to the students) and because they were prospective or current online instructors studying online teaching. Recruiting these participants gave us an opportunity to evaluate users' perceptions of the OCDC, since they were provided with the OCDC and designed an online lesson during their coursework. Twelve of the participants were teachers, one was an instructional designer, one was a student, and the other five were involved in other professions (engineering, library science, nursing, and technology support). The participants had a range of experience designing online courses, from none (n=4) to having designed more than five courses (n=7).

Survey Instrument

The online survey, consisting of three demographic questions, three open-ended questions, five Likert scale questions, and one multiple choice question, helped determine participants' perceptions of the OCDC. The survey questions were developed to understand how the participants used the OCDC (as intended, before, during and after course design, or at the end of the design process), their level of satisfaction with the OCDC, if using the OCDC impacted their course design, as well as solicit input for changes for future iterations. A full copy of the survey questions is in the appendix.

Data Analysis

We used descriptive statistics to analyze the quantitative data. Due to the small sample size, more sophisticated methods of analysis would be inappropriate. We reviewed the participants' responses to our open-ended questions, looking for patterns and insights to help us refine the OCDC. The results are discussed in the next section.

Findings

User Experience and Satisfaction

The OCDC changed the course design process a lot for 21 percent of the participants (n=4), a moderate amount for 26 percent of participants (n=5), a little for 47 percent of the participants (n=9), and not at all for one participant. Also, data revealed that there was a pattern in the participants' use of the OCDC: While the OCDC was designed to be used in three stages (before, during, and after course design), 79 percent of the participants (n=15) used the OCDC at the end of the design process.

Overall, 63 percent of the participants were satisfied or extremely satisfied using the OCDC (n=12). The remaining 37 percent of participants neither liked nor disliked the OCDC (n=7). Seventy-nine percent of the participants reported being extremely satisfied (n=4) or satisfied (n=11) with their completed course design. Based on the descriptive data, there appeared to be no relationship between past experience designing online courses and satisfaction or acceptance of the OCDC.

Checklist Design

All of the participants (N=19) found the OCDC easy to understand. Some participants commented on the ease of use and the layout of the OCDC, "The [OCDC] is a great way to make sure that nothing is forgotten when designing the course" and "I liked that it was chunked into three categories that helped one to know what to do before, during, and after designing." Another participant mentioned,

> This [OCDC] is straightforward and easy to use. I am not going to have to do any extra digging to interpret the meaning of each category. I think that alone would make this tool more likely for practitioners to use as they design courses.

Future Use

When designing courses in the future, 64 percent of the participants indicated they would likely (n=6) or very likely (n=6) use the OCDC. However, 16 percent of the participants (n=3) indicated they were unlikely to use the OCDC in the future. The "unlikely" participants stated "some specificity might be helpful" and "the [OCDC] needs to address basic requirements of online course design and fewer stylistic/instructor preferences."

Suggested Changes

Several participants suggested changes for the OCDC. For example, when evaluating the format, thirty-one percent (n=6) of the participants wanted to note their progress with an interactive checkmark in the checkbox. Some participants suggested adding additional clarification. One student wrote,

> I would expand the content to more fully cover the elements to be considered. For example, analysis of the learners is one element of the initial process. It is also important to analyze other elements, such as context and learning task. I would include other key elements in the [OCDC].

Discussion

In this study, we designed, developed and tested an online course design checklist for the purpose of helping online instructors design quality online courses. About half of the participants reported that the OCDC impacted the design of their online courses a lot (n=4) or a moderate amount (n=5). In addition, 63 percent of the participants were satisfied or extremely satisfied using the OCDC to guide their online course/lesson design (n=12). These findings show that the OCDC is a promising tool to aid the design and development of online course content.

The OCDC features criteria applicable to all experience levels of online instructors designing online courses. Based on the descriptive data, participants' past experiences designing online courses does not seem to associate with their perception of the OCDC. This result, however, may be a consequence of the participants' role as students learning about online teaching and course design. Mandernach, Donnelli, Dailey, and Schulte (2005) developed an Online Instructor Evaluation System to encourage persistent professional development.

Mandernach et al. found new instructors were more receptive and appreciative of the review process than existing instructors. Based on Mandernach et al.'s study, course designers who are not students may be less inclined to use the checklist, although the participants in our study perceived the OCDC helped facilitate their course design by reminding them of basic information in the course design process. More research is needed, however.

We selected the criteria first based on literature and arranged the criteria based on different phases of ADDIE model with three phases, before, during, and after course design. The online course design criteria were separated into three columns to help organize the process, break down the work for users, and encourage reflection. One of the participants suggested the three column format helped "reduce the cognitive load" of designing a course. Half of the participants (n=10) specifically noted that they liked the layout (i.e., before, during, after course design). For example, one participant stated, "I particularly appreciated the sectioned format, Before Beginning, During, and After design completion." This is especially interesting since 79 percent of the participants (n=15) reported using the OCDC *after* course design. It is not clear why the participants used the OCDC at the end. It may have been a flaw in the way it was presented to participants, or that its use was not emphasized during the course. A participant explained,

> I loved the before, during, and after format a lot and would have used the tool in that manner had I realized that it was structured that way. Unfortunately, I looked at it after I had completed most of my lesson design.

This issue is intriguing and deserves more investigation. A solution needs to be found to nudge users to use the OCDC throughout the process of course design and not only upon completion. Instructors designing online courses may need to be provided more information about the benefits of using the checklist with pause points. Palloff and Pratt (2002) suggest that familiarizing online instructors with the tools they will be using is key to encouraging proper use of the tools. Perhaps providing course designers with testimonials from fellow course designers of the benefits of using the three distinct phases of the OCDC may encourage implementation of the OCDC throughout the design process.

The current OCDC is a work in progress. It is important to test and revise the instrument (Berk, 2013) to further refine it. Based on the qualitative data, participants provided several suggestions for revising the OCDC. One suggestion was to add additional clarification. To keep the OCDC simple and easy to use, we would keep the current layout. However, users could be provided with links to examples of the various criteria featured on the OCDC. Providing a link to additional resources has been shown to be valuable in other research (Mandernach et al., 2005; Weschke & Canipe, 2010) and can help practitioners resolve issues (Oliver, 2000). In a survey regarding the aspects online

instructors desire help, Pennsylvania State University instructors indicated an interest in access to online self-paced training in the form of instructional design assistance and resources (Taylor & McQuiggan, 2008). This research supports the use of a checklist with links to additional resources that can be accessed informally.

Future iterations of the OCDC should include a way for users to check off criteria when using the tool electronically. This would provide users a chance to check off criteria, as completed. This task would help ensure each criterion has been addressed.

In addition, a review of national and statewide evaluation instruments (Baldwin et al., 2018) found common criteria on a majority of instruments. While the current OCDC includes the majority of the criteria most frequently cited, it is missing a check to ensure the course includes accommodations for disabilities. We plan on adding this criterion, as well as revising and improving the OCDC based on feedback we receive.

While one of the main purposes of the OCDC is to facilitate online course design, the OCDC does not necessarily replace or eliminate the need for more sophisticated course design evaluation instruments (e.g., Quality Matters, QLT). The OCDC is process oriented; it can be used to guide the course designer in building a quality course. Institutions often use more sophisticated instruments to provide greater assessment scope as well as evaluation by additional personnel beyond the original course designer (Baldwin et al., 2018).

This study represents a starting point for the OCDC. The study results are limited by the format of the survey questions. Future research could interview participants to gather details on how the checklist impacts course design. This study is limited by the number of participants involved (N=19), and by the characteristics of the population (current or prospective online instructors taking a graduate course on online teaching). Future research could provide more information by expanding the number of participants using the tool. It would also be interesting to use the OCDC in situ to better understand its impact, as well as users' perceptions.

Furthermore, research in the future could experiment with the addition and subtraction of criteria.

Conclusion

The OCDC offers course designers a simple tool to establish a standard of baseline performance (Thaler & Sunstein, 2008) in online course design. Using a checklist avoids the negative aspect of judging work, and provides positive motivation through the act of checking off criteria, encouraging users to continue through the task until completion.

The OCDC highlights criteria that should not be ignored during online course development. It is likely that readers of this paper can identify criteria that could or should be included in the OCDC. These conversations are welcome. The purpose of online course instruction is to further student learning (Fink, 2003). Course design facilitates instruction by helping to structure content, engage learners, and simplify navigation. All decisions made about online courses and teaching should support student learning. The more we talk about online course design and work through the process, the more likely we will share ideas and thus improve online education.

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Table 1. *The Online Course Design Checklist*

Before	During	After
☐ Analyze learners to understand their knowledge base and interests (1)	☐ Chunk information into manageable lessons (4)	☐ Confirm course tasks measure what you want students to learn (11)
☐ Identify what will be covered in the course (2)	☐ Explain student engagement and expectations (5)	☐ Check that lesson navigation is intuitive (12)
☐ Identify measurable items that the students must be able to accomplish as a result of the course (3)	☐ Trigger interaction between student-student, student-instructor, student- content (6)	☐ Eliminate extraneous media and information (13)
	☐ Provide rubrics for assignments (7)	☐ Confirm all links work (14)
	☐ Optimize use of beneficial media (8)	☐ Run spellchecker (15)
	☐ Include opportunities for students to offer feedback regarding lesson format and content (9)	☐ Have peer/friend/colleague review work and identify any unclear material (16)
	☐ Identify contact information for instructor, technology help and student support services	

Appendix

Instructional Design Checklist for Online Courses Survey

The purpose of this survey is to collect your feedback regarding the Online Course Design Checklist. Your participation is voluntary. Your participation would be very much appreciated to help develop a better understanding of practitioners' thoughts regarding the use of a course design checklist, and this checklist in particular.

How did you use the checklist?

- o As designed, with breaks between the three columns as work progressed
- o At the end of the design process
- o Not at all

Were you satisfied with the checklist, neither satisfied nor dissatisfied with it, or dissatisfied with it?

- o Extremely satisfied
- o Satisfied
- o Neither satisfied nor dissatisfied
- o Dissatisfied

Did using the checklist change the course design process?

- o A great deal
- o A lot
- o A moderate amount
- o A little
- o Not at all

How easy was the checklist to understand?

- o Extremely easy
- o Easy
- o Neither easy nor hard
- o Hard
- o Extremely hard

Would you use the checklist in the future?

- o Very likely
- o Likely
- o Not sure
- o Unlikely
- o Very unlikely

How satisfied are you with your course design?

- o Extremely satisfied
- o Satisfied
- o Neither satisfied nor dissatisfied
- o Dissatisfied
- o Extremely dissatisfied

What do you like about the checklist? Please be specific.

What would you change about the format of the checklist?
What would you change regarding the content of the checklist?
How many online courses have you previously designed?

- None
- 1-2 courses
- 3-4 courses
- 5+ courses

What is your profession?
What instructional design related courses have you taken before?