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Analysis of Strategies for Quality Assurance in Online Education: The Implications of the Role of an Instructional Design Team to Support Faculty

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This study investigates faculty support for quality assurance in online education, and offers suggestions for its improvement based on feedback from Instructional Design (ID) staff working at a public university in the U.S. Qualitative research using semi-structured interviews was conducted with seven ID staff in order to examine their perceptions regarding faculty support related to quality assurance in online education. The results of the data analysis indicate that four types of faculty support-quality assurance reviews using Quality Matter (QM) standards, templates, individual consultations with ongoing support, and monitoring-were offered for faculty. Faculty support for quality assurance in online education could be improved by developing specific quality assurance standards, recruiting external experts, examining learning effects, developing a quality assurance management system, and sharing documents among ID staff. This study highlights the necessity of quality assurance in online education and provides cases of faculty support in a real higher education setting.

Keywords : Quality assurance, Online education, Faculty support, Instructional design team, Quality assurance strategy, Higher education

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Introduction

With the development of the Internet, online education has become one of the most common methods of learning in higher education. According to Nhatuve (2021), online education encourages learners to select their preferred times and places for learning without in-person school attendance, and to contemplate their progress and learning styles on an individual level. Online education also offers learners numerous chances to interact with other learners or instructors through various communication tools (Hu, 2023).

Despite the advantages of online education, it carries certain quality issues pertinent to higher education. For example, learners might experience difficulties in engaging in effective learning activities, and in implementing a high level of communication with faculty and their peers (Johnson et al., 2023). Because faculty are subject matter experts about a given major, but may not have the pedagogical knowledge and instructional design principles required to design and develop quality online education programs, they can at times experience difficulties in offering effective online education (Caplan & Graham, 2004; McGahan et al., 2015). Institutions need to assist faculty in learning about and practicing online education development and distribution to increase the quality of online education curricula faculty in turn create (Johnson et al., 2023). These issues are currently pressuring higher education institutions to develop and implement a quality assurance process that can ensure high standards of teaching and learning, and offer other related educational assistance in online education (Hafeez et al., 2022).

As quality assurance becomes an increasingly important issue in online education, many institutions strive ever harder to find various ways to approach this task. Higher education organizations and related companies have developed various strategies, standards, and guidelines to ensure a certain level of quality in online education (Singh et al., 2023). They also tend to concentrate on the creation of frameworks and criteria

necessary to constructing a quality assurance review procedure (Ozdemir & Loose, 2014; Shelton, 2011). Based on these endeavors, ID staff and faculty in higher education tend to rely on quality assurance standards when they establish specific guidelines for an institution and teach their online courses (Southard & Mooney, 2015).

Previous research related to quality assurance in online education focuses on the development of review models, frameworks, rubrics, and checklists (Choi & Ahn, 2010; Hadullo et al., 2017; Inglis & Abdous, 2009; Lee & Dziuban, 2002; McGahan et al., 2015; Misut & Pribilova, 2015; Ozdemir & Loose, 2014). However, little research has investigated quality assurance strategies in online education and its related issues in real higher education settings. Britto et al. (2013) examined the perspectives of three higher education institutions regarding quality assurance in online education. Their results showed that the three institutions' quality assurance tactics exhibited constancy–for example, they utilized similar review models and centralized assistances. In their study of quality assurance programs in online education, Darojat et al. (2015) drew from data collected at three open universities to conduct a comparative qualitative research study. Their findings revealed that their educational services for learners were reactive to government and external companies, factors related to language and culture, and learners' feedback. These previous studies were beneficial to understanding institutional perspectives related to quality assurance, such as quality matter policies and the models they utilized. However, no previous research has investigated ID staff's perspectives regarding these quality assurance services. This study addresses this gap to investigate ID staff's perceptions regarding faculty support for quality assurance in online education in a real higher education setting.

Literature Review

Quality Assurance Defined

Quality assurance has been defined in several previous studies. Gilbert (1992) defined quality assurance as "the assembly of all functions and activities that bear upon the quality of a product or service so that all are treated equally, planned, controlled and implemented in a systematic manner" (p. 32). Similarly, Harman and Meek (2000) explained that quality assurance refers to the systematized management and judgment processes utilized to confirm the success of quality products or enhanced quality. According to Welzant et al. (2015), quality assurance is a series of procedures, rules, or activities executed externally by quality assurance companies and authorizing organizations, or internally by institutions. Based on such existing definitions, overall, quality assurance refers to systematic management and assessment processes to guarantee or improve the quality of a product or service by external or internal institutions.

With reference to the various definitions of quality assurance, some research has explained the meaning of quality assurance focused on the higher education environment. Phipps et al. (1998) defined quality assurance as the prearranged and systematized review procedure of a higher education institution or program that decides upon adequate criteria of education, scholarship, and structures that are continuous and improving. As argued by Mackoww and Witkoski (2005), quality assurance may be helpful in improving, modernizing, and internationalizing higher education. This occurs through confirming and refining the quality of provision and doing so ensures that academic courses are on sound scholastic and structural foundations, allowing for an unbiased review of their efficacy. Martin and Stella (2007) described quality assurance as plans and procedures executed in a higher education institution or program to confirm that such entities are satisfying their own aims and fulfilling criteria that could be applicable to general higher education settings or to

certain occupations, areas, professions, or disciplines. These definitions indicate that quality assurance in higher education is comprised of certain procedures to review the quality of an institution or program based on its own purposes and standards, so as to ensure the quality of education.

Necessary Aspects of Faculty Support for Quality Assurance in Online Learning

Quality assurance is a critical aspect of ensuring the efficacy of online education. The term *quality assurance,* in online education contexts, commonly refers to plans, activities, organized criteria, and processes intended to improve course content and accomplish prearranged standards (Darojat et al., 2015). Through quality assurance, higher education institutions determine the goals of their program and assess outcomes, including those that contradict predetermined goals, to assess the value of their online education programs (Lee & Dziuban, 2002).

As those primarily entrusted with assuring a certain level of quality of online education, faculty are required to know how they can teach students effectively in online learning, what they can do for quality assurance, and what kinds of qualifications are required (Yang & Cornelius, 2004). However, most faculty members who design online education are afforded insufficient support opportunities prior to developing and teaching high-quality online education courses (Southard & Mooney, 2015). To help faculty design and develop high-quality online education program, ID staff need to provide appropriate support. Their support of faculty in comprehending and practicing online education development and delivery will produce more successful online education programs, and increase student satisfaction (McGahan et al., 2015; Murray et al., 2012).

To encourage faculty to provide students with high-quality online education, faculty need to receive support from experts who specialize in online learning. In order to design and develop high-quality online instruction in innovative learning

environments, faculty need to learn, design, and distribute tactics, technologies, and pedagogical principles for implementing online education (Britto et al., 2013; Yang & Cornelious, 2005). Faculty should receive support in the form of faculty training, instructional design assistance, and production assistance for the development of learning materials; such support would allow them to better design, develop, implement, evaluate, and improve online education using the appropriate delivery methods (Wang, 2006). Therefore, specific faculty support strategies should be suggested for experts (e.g. ID staff) so that they can provide faculty with appropriate assistance to ensure high-quality online education.

Using appropriate learning resources is also essential for quality assurance in online education in order to provide students with effective online learning environments. Creating and organizing learning resources may eventually have an impact on the success of online education, since students are expected to study using high-quality learning materials so that they can learn effectively (Masoumi & Lindström, 2012). Higher education institutions should provide faculty with support to help develop their teaching materials and recommend appropriate templates or learning resources for online education (Masoumi & Lindström, 2012; Wang, 2006). Thus, for quality assurance in online learning, the experts in charge of faculty support in higher education need to know which appropriate learning resources they can develop.

Research Purpose

This study investigates faculty support for quality assurance in online education and offers suggestions for improvement drawn from the perspectives of ID staff. The following research questions are addressed in this study:

1. How do ID staff provide faculty support for quality assurance in online education?

2. How can faculty support for quality assurance in online education be improved for future use?

Research Methodology

Research Design

This study employed qualitative research as a research methodology. Qualitative research is implemented for "the exploration of meanings of social phenomena as experienced by individuals themselves in their natural context" (Malterud, 2001, p. 483). Qualitative research is a suitable research method to employ here, since faculty support for quality assurance in online education and related suggestions for its improvement were investigated based on ID staff's perceptions in real settings. Specifically, a case study was selected for this research. According to Heale and Twycross (2018), a case study is "an intensive, systematic investigation of a single individual, group, community or some other unit in which the researcher examines in-depth data relating to several variables" (p. 7). The case study framework encourages readers to seek out certain cases that can be applied in similar settings and subsequently decide what findings from that particular case can be transferred to their own unique situations (Merriam & Tisdell, 2015). This study specifically described faculty support for quality assurance in online education and provided suggestions based on the perspectives of the ID staff of an instructional design team in a public U.S. university. Through this case study, readers can learn about the types of quality assurance support available to faculty along with helpful suggestions, and apply this knowledge to similar situations in their own careers.

Semi-structured interviews, utilizing a set of open-ended and predetermined interview questions (Ayres, 2008), were conducted for this qualitative research. This technique allows interviewees to express themselves in their own unique ways, and it allows researchers to understand their responses holistically (Qu & Dumay, 2011). In this research, semi-structured interviews were useful for each participant in explaining their own perceptions or experiences in their own words, free from jargon. In order to implement semi-structured interviews, interview questions that could be

easily modified were utilized because participants had varying roles or titles in the instructional design team.

Participants

Seven ID staff who were in charge of instructional design support and quality assurance as part of an instructional design team at a public university in the United States participated in this research. This public university is located in a medium-sized city in the southeastern region of the U.S. and offers undergraduate and graduate programs to more than 37,000 students, with courses taught by about 2300 faculty. This instructional design team was selected for this study because it offered faculty support services related to quality assurance in online education.

In order to select our participants, purposive sampling was implemented. In purposive sampling, participants are recruited based on certain criteria, determined by the researchers, that identify them as the most suitable individuals to answer the predetermined research questions (Brotherson, 1994). In this research, seven ID staff at a public university were selected because of their experience in supporting faculty for quality assurance in online education. To select the appropriate participants, the researcher asked about their respective roles before the interviews. According to Robinson (2014), interview research for the interpretation of certain phenomena can be an appropriate approach for between three to 16 participants in a study. Therefore, seven participants are sufficient to ensure a useful analysis of faculty support for quality assurance in online education in a real higher education setting.

Among the seven ID staff surveyed, three participants had one to two years of work experience in the current team, two had three to four years, and another two had five to six years. They occupied any of three different positions: two participants were instructional designers, three were instructional support specialists, and two were directors or coordinators. Most were males (N=6), while one was a female. Within this group, three individuals were in their 20s or 30s and four were in their

Table 1
Demographic information of participants

Name	Position	Gender	Age range
Jack	Director	Male	40-49
Julia	Instructional designer	Female	40-49
Mark	Instructional designer	Male	30-39
Nick	Instructional designer	Male	40-49
Tom	Instructional design support specialist	Male	40-49
Pole	Instructional design support specialist	Male	20-29
Tylor	Instructional design support specialist	Male	30-39

40s. Six of these ID staff had earned master's degrees, and one had a Ph.D. degree. Table 1 shows the demographic information of the participants.

Data Collection

In this research, participants were asked to answer open-ended questions related to the research, covering topics such as types of faculty support and their suggestions for quality assurance in online education.

All participants completed their interviews through face-to-face meetings with a researcher. Each interview took approximately 30 minutes. All of the interviews were recorded using a voice recorder with the participants' consent. After completing all interviews, Rev.com was utilized to transcribe recording files. After the researcher transcribed the interviews, all participants checked their transcripts to maintain transparency, and the recording files were subsequently deleted.

Data Analysis

Following guidelines proposed by Miles and Huberman (1994), data analysis was conducted in three phases: "(1) data reduction, (2) data display, and (3) conclusion

drawing and verification" (p. 10). Throughout this data analysis procedure, the lead researcher independently interpreted the main findings so as to answer the research questions informing this study.

For data reduction, a coding process was conducted to find notable data relevant to answering the research questions. After preparing all transcripts, with pseudonyms, the researcher read the transcripts carefully and highlighted data related to the research questions. Based on the results of this coding process, categories, and subcategories were created to find patterns or themes relevant to the research goals. NVivo was utilized to create categories and subcategories to manage and review the found data.

Data display organizes and summarizes data utilized to determine final conclusions (Miles & Huberman, 1994). In order to display data, the researcher organized data by locating common patterns or themes, which were determined by comparing and summarizing the categories and subcategories related to the research questions. The researcher also presented participants' direct quotes as narrative descriptions to establish data accuracy.

Finally, the researcher determined their conclusions to answer the research questions and point to several future implications of this research. To prove the validity of the research, peer debriefing was utilized. For peer debriefing, researchers may recruit one or more peers who can provide guidance and discuss their concerns and interpretations of phenomena (Thyer, 2009). In this study, the researcher asked a peer who also conducted qualitative research to examine the findings. This peer examined the coding process, categories, subcategories, participants' quotes, and conclusions, but was not provided personal information about the participants. Based on this peer's comments, the researcher revised the findings accordingly. As mentioned above, in order to ensure reliability, participants checked their interview transcripts for accuracy. According to Creswell (2014) and Gibbs (2007), for reliability, transcripts need to be checked by interviewees to validate that the transcripts do not contain noticeable misinterpretations; this ensures reliable

transcript creation.

Results

Faculty support for quality assurance in online education

Conducting quality assurance reviews using the Quality Matter (QM) standards. All ID staff provided faculty with quality assurance review processes using the Quality Matter (QM) standards developed by the MarylandOnline, Inc. (MOL) consortium, which certifies the quality of online courses and online educational components. They assess online courses based on these standards for quality assurance, and then they assist faculty in improving online courses to meet all necessary standards, as they explain:

> We have a process by which somebody who has already built a course can submit it to us for quality assurance, we teach the faculty how to design a course and help them do that. Then for the second one…it's for people who don't feel like they need to go through all of that level of process, and so they give us access to their course and we provide feedback and work with them until their course meets our quality standards (Jack).

> We use the QM standards. The QM standards are what we kind of use to judge whether an online class or an online course is of quality or not (Julia).

For the quality assurance review process, the ID staff typically held meetings to assess online courses using the QM standards. In these meetings, they could review learning objectives, learning content, and delivery methods together, and propose suggestions to improve quality assurance. Through these meetings, the ID staff could uncover new and different perspectives from their colleagues that might enhance the quality assurance review process:

> We do discuss, and we do have the meetings that essentially, we go through the quality assurance for like a real development of content for faculty. So, I sit in the meetings where other people report on what has been the process, and what is lacking, what has been achieved. (Tylor).

Providing templates. ID staff also offered appropriate templates for faculty to use in their online education courses. All templates were created based on the QM standards to guarantee the quality assurance of online education. Various templates were used to create syllabuses or design online courses in a learning management system, depending on the type of learning required and the course period. Faculty could use and modify these templates based on the features of their online courses:

> I found out we had different templates. We have a template on a hybrid course. We have a template for a 12-week course. So, what I learned basically from there was how to apply the things we learnt in the QM standards into making it visible within the learning management system (Pole).

> We have templates, canvas course templates that we can give them that they can just plug their information into, so that would help with the quality assurance part (Jack).

All ID staff also created various templates based on the QM standards through their collaborations, to help faculty better design and develop quality online courses. These ID staff usually created templates and discussed all offered ideas for revision. When the ID staff as a whole agreed upon a template for online education use, the faculty could then utilize it in their online courses:

> The template would be, so typically one person starts kind of working on a part of it and then it gets passed around for everybody to have a look at it or we'll have a little meeting. That way we can all see and agree and understand what everybody else is thinking (Nick).

Offering individual consultations with ongoing assistance. Individual

consultations also were provided for faculty to help design their online courses based on the QM standards. ID staff assessed their online courses using all elements of the QM standards and gave faculty suggestions that would help them meet these standards. Various types of consultations could be offered depending on the specific faculty needs.

> If any faculty has a question about how we do our quality assurance process, we offer individual consultations. It's a 12-week long process, where we help them through the development process. Or we have shorter time periods if they only want the knowledge. So, we have multiple ways for faculty to come in (Mark).

> With faculty, we have consultations. we have weekly consultations or weekly meetings with them. They bring their course content here. And per the QM standards, we measure or assess this content and see if they match up and then provide the recommendations and the needed guideline[s] for faculty to make them fit, the best fit for online education (Tom).

Regardless of the type of need, all ID staff provided ongoing assistance to enable faculty to design their online courses based on QM standards, which then allowed them to certify the quality of all components of their courses. In particular, all ID staff offered to help with the QM standards when faculty needed assistance related to online education, because faculty must always be mindful of quality assurance in online education.

> We also offer ongoing semester support for faculty when assisting them and building their courses. So, we use here [the] QM standards (Mark).

Monitoring all online courses for quality assurance. All online courses were recorded as evidence for the quality assurance process. In the instructional design

team, one ID staff recorded and maintained all information related to online courses that faculty provided for their students. Another ID staff monitored all online courses to ensure quality assurance and compared a previewed online course with a current one to inspect any quality assurance-related changes that had been made. These records were regarded as evidence that all online courses in the institution met quality assurance standards.

> I gather all the evidence for online quality assurance courses, and then I maintain a record of data for classes that have been taught online… If the course comes back to us and we realize it came back a second time, but with a different person, we can go back in to see if they're using the more updated one or if they're using something completely different (Nick).

Suggestions to Improve Faculty Support for Quality Assurance in Online Education

Developing specific guidelines with QM standards. To provide faculty with support for designing online courses, ID staff needed the specific guidelines provided by the QM standards. The QM standards include a checklist covering eight categories related to designing an online course: course overview, learning objectives, assessment, resources, learning engagement, course technology, learner support, and accessibility (Pollacia & McCallister, 2019). According to the results of the participant interviews, this QM standards checklist encompasses the broad concerns of online education. Therefore, interpretations and guidance related to QM standards may be various and imprecise. More specific guidelines and related examples are required for ID staff to provide consistent guidance and avoid misunderstandings with faculty, as these participants explain:

> There doesn't have to be a complete outline of like ABCD. So there could be a little bit of interpretation depending on if somebody is just looking at the standard words, versus the background information (Nick).

> I'd rather that certain things are made categorically clear like do this and don't do this. But even then, I still think that it can be a good suggestion for them because they create it to make room for diverse settings, and diverse interactions (Tom).

Recruiting external experts. External experts could be recruited to assess online education from diverse perspectives. In this study, the instructional design team was the only group that could review quality assurance in online education. Although all ID staff attempted to examine quality assurance issues in each online course, they needed more diverse assessments from experts with different perspectives. Assessments with external experts could also be helpful to increase the credibility of the quality assurance process:

> We are the only group that does quality assurance reviews of courses. So, I mean it could be having different people take a look at [it]…We have evidence to prove that okay, here is what that person did and this is what proves that the person did all of these and the course passed quality assurance review (Julia).

Examining the learning effects of quality online courses. The actual learning effects of quality online education need to be investigated to provide learners with effective online education. Because quality assurance is related to designing online courses, ID staff could not examine the effectiveness of teaching in online education on their own. They were focused on online education development to ensure quality assurance in their institution, but they were not certain about learners' satisfaction regarding the online education programs they developed. Thus, the effectiveness of teaching needs to be examined to consider the effects of using quality online education on learners:

> The quality assurance is that it assesses the design, not the teaching. That's the downside. So maybe more needs to be done to assess the teaching itself, the effectiveness of the teaching (Julia).

> We're trying to create let's say online education content that has quality assurance based on the principles of what is also preferred by students, and this might change. But, we don't know its long-term effect, of course (Tylor).

Developing a quality assurance management system. A quality assurance management system could be developed to manage all quality assurance review procedures. In the quality assurance review, ID staff assessed online courses and gave faculty feedback to improve the quality of their online education. Based on their feedback, faculty revised their online courses until these courses met the QM standards. In order to implement this process, ID staff needed to record the results of their assessments, the feedback they provided, and their interactions with faculty. In addition, they hoped to manage all review schedules with faculty to prevent any delays. A quality assurance management system could be useful to save all the relevant information and control review processes with faculty:

> If I was going to add [to] having a more systematic process for project management, and also letting the faculty members know what those things are, [it] would help out. Because sometimes if there are backup and deliverable delays, the actual development process was to delay the ultimate ending of the development process. So, finding ways to streamline the project management side, would probably be very helpful (Mark).

> What I'm looking at is where we have a software [program]. I want to see a closure to where we have a very efficient software that can quickly and easily provide all texts or make them more accessible so that it makes the process a very easy one (Tom).

Sharing documentation among ID staff. Sharing of information and documentation among all ID staff would be helpful to offer faculty consistent support. Although all ID staff were qualified to provide support related to quality assurance in online education, they had different levels of knowledge regarding quality assurance. In order to provide faculty with unvarying support, all ID staff

need to share their knowledge or expertise in quality assurance and create documents their peers could utilize.

> I would say documenting is needed, we just completed working with our cohort faculty members. We didn't discuss it in a meeting. So, documenting our experiences is needed in our team (Pole).

> We [would] rather share the process, and share some of the knowledge. Say for instance, if you were to come in and have a question that I know another one of my colleagues can answer, even if I can't get to them, if I have an internal knowledge base, I can still look up something to respond to that (Mark).

Discussion

This study was conducted to investigate ID staff's perspectives of faculty support related to quality assurance in online education in a higher education setting. According to the results of participant interviews, they were in charge of four types of faculty support: 1) the quality assurance review process, 2) providing templates, 3) individual consultations, and 4) monitoring.

For the quality assurance review process, using the QM standards, ID staff assessed already-developed online education programs together and offered faculty suggestions based on the results of their assessments to improve the quality of online education. ID staff, rather than external experts, offer this process because it is an internal procedure, provided at this institution by instructional designers in partnership with the faculty who design online education courses (Ozdemir & Loose, 2014). Chua and Lam (2007) argued that the quality assurance review process has improved the overall quality of online education and student learning activities. Therefore, the quality assurance review process could be one of the effective ways to

manage and improve the quality of online education.

ID staff provided faculty electronic templates to faculty to help design online education easily, without quality assurance issues. ID staff developed their templates based on the QM standards for designing online education in a learning management system and evaluating online education curricula. They also recommended appropriate templates for faculty based on the type of content, subject, stage of learning, and type of course. According to Henry et al. (2008), templates are beneficial for faculty when designing online education that meets the standards and goals of an institution as well as follows relevant style guides. Thus, providing electronic templates could greatly assist faculty who are designing online education based on quality assurance standards.

ID staff offered individual consultations along with ongoing support for faculty to guide the setting of learning goals, the design of learning activities, the selection of appropriate technologies, and the conducting of assessments based on their interpretation of the QM standards. Before providing instructional design consultations individually, ID staff assessed the previously developed online education models and investigated faculty's design abilities and needs. Based on the results of these investigations, ID staff provided appropriate types of consultations, either in long term or short term contexts. Law (2010) suggested that this kind of feedback could be greatly useful in enhancing the quality of online education when paired with interpretation guidelines. This means that ID staff's individual consultations could have a positive impact on the quality of online education.

ID staff monitored all online education that faculty provided to students and tracked all modifications made to assure the quality of online education in their institution. Monitoring is an important part of the internal quality assurance process (Zhang & Cheng, 2012). Assessment data from monitoring online education in an institution can be proof of online education's quality and efficiency (Ruiz et al., 2006). Therefore, ID staff, as internal reviewers, need to monitor all online education courses and their progress to confirm their quality and provide students with quality

online education.

This study also examined ID staff's suggestions for improving current faculty support for quality assurance in online education. Five suggestions for improvement of faculty support for quality assurance emerged from the findings: 1) developing specific guidelines for the QM standards, 2) recruiting external experts, 3) examining the learning effects of qualified online education, 4) developing a quality assurance management system, and 5) sharing documentation among ID staff.

To better assist faculty, ID staff could develop or adopt specific quality assurance standards for online education courses. Quality assurance standards can be utilized as a rubric to perform context-bound assessments of online education programs (Ozdemir & Loose, 2014). Standards with guidelines are necessary for developing and designing online courses and determining optimal delivery methods (Southard & Mooney, 2015). Therefore, ID staff need to develop or adapt more specific quality assurance standards so that they, alongside faculty, can design and evaluate online education free of uncertainty.

To confirm the results of the quality assurance review process, ID staff could invite external reviewers. According to Belawati and Zuhairi (2007), because quality is a matter of perception, external reviewers are needed to validate perceptions of quality assurance. They also argued that external reviewers can confirm whether or not the quality assurance review is working well and provide valuable feedback to ID staff to enhance online education quality. External reviews are necessary for ID staff and faculty to fully assess the quality assurance review process, and contributions from different perspectives can prove beneficial to online education programs.

As the third suggestion above states, ID staff should examine the actual effects of online education courses on students' learning. In common practice, ID staff provide faculty with comments based on quality assurance standards, and faculty tend to follow these comments along with established educational standards. However, they often fail to consider how the online education they are offering impacts students' actual learning. In fact, previous research related to the effects of qualified online

education is scarce in educational journals. Previous research has usually explored students' perceptions of existing online education, but not the qualified online education (e.g. Jara & Mellar, 2010; Yang & Cornelius, 2004). Thus, research needs to be conducted that examines students' learning effects as well as their perspectives on qualified online education.

To control all quality assurance review processes, a management system needs to be developed or adapted by the instructional design team. A quality assurance management system is a useful way for ID staff and faculty to track the quality of education and ease the course creation process (Aly, 2022). A quality assurance review process is vital to assessing and redesigning online education. Such a management system would benefit from ID staff recording all processes and existing online education practices as evidence and co-managing all schedules alongside faculty to prevent any delays in program implementation.

The final suggestion stipulates that ID staff should share knowledge amongst themselves regarding instructional design and quality assurance, so that ID staff-provided support remains consistent across the board. In the idea-sharing process, documentation is an important aspect of providing consistent assistance for faculty's

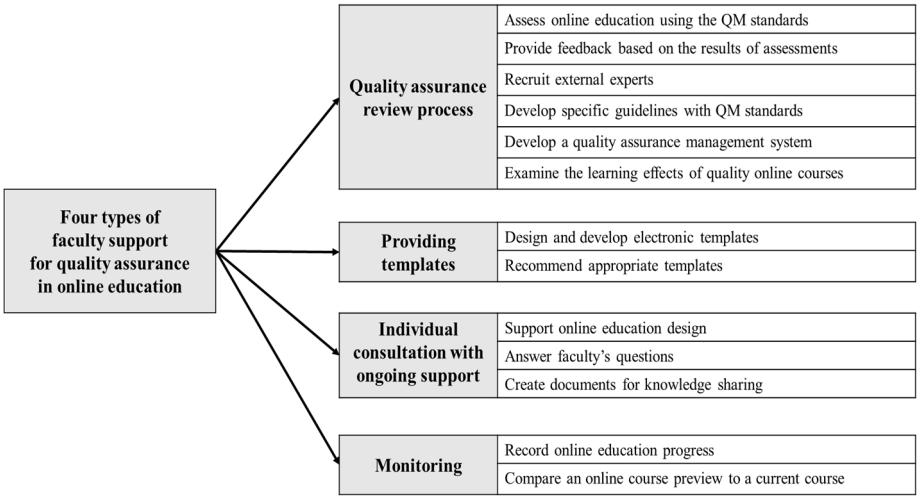

Figure 1. Four types of faculty support for quality assurance in online education

announcements regarding and execution of quality online education (Stracke & Hildebrandt, 2007). Therefore, documentation should be helpful when ID staff share their knowledge of reliable ongoing support techniques.

Figure 1 summarizes four types of faculty support for quality assurance in online education and includes related suggestions.

Limitations

This study has several limitations. First, the results of this study could not be generalized widely because this study was conducted at one public university in the United States. However, this study does have implications for faculty support for quality assurance in online education and suggestions for online learning's improvement in higher education settings. Second, this study was conducted with a small number of participants (N=7). Thus, its implications would be applicable to small instructional design teams in higher education contexts only.

Conclusion

This study investigated faculty support for quality assurance in online education and suggestions for its improvement from the perspectives of ID staff in a higher education setting. This study contributed to our understanding of the perspectives of ID staff in charge of quality assurance in online education. In addition, this study highlighted the importance of quality assurance in online education through faculty support. This study could serve as a reference for ID staff that allows them to better support faculty and thereby improve the quality of online higher education.

In future research, faculty's perceptions regarding quality assurance strategies need to be examined in order to investigate areas in which they are satisfied, as well as their

suggestions for improvement. Students' perceptions also need to be investigated to examine their satisfaction with or learning achievements within qualified online education. To generalize the results of this research, additional participants and a larger instructional design team could be involved, so that the results could be applicable to various instructional design team settings.

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