
Teaching Writing in Online Distance Education: Supporting Student Success

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Abstract

An intervention is a counseling action an instructor may use to support a student who struggles to work productively in an online writing instruction (OWI) course. Interventions may increase retention and graduation rates at institutions as well as increase student and teacher satisfaction (Allen, Bourhis, Burrell, and Mabry, 2002; Archambault and Crippen, 2009; McCombs, Ufnar, and Shepherd, 2007; O'Dwyer, Carey, and Kleiman, 2007; Stein, Wanstreet, Calvin, Overtom, and Wheaton, 2005; Sun, Tsai, Finger, Chen, and Yeh, 2008). In Moore's (1993) Theory of Transaction Distance, interventions are called "advice and counsel," and they are a crucial component of the *program structure* element in the theory. Many researchers recommend early identification and intervention for struggling students (Archambault et al., 2010; Simpson, 2004). For example, Simpson (2004) found that early interventions following Keller's (1987) ARCS model (Attention, Relevance, Confidence and Satisfaction) were effective in helping students complete a course. In addition, Simpson found that such interventions could be cost effective; however, there are many open variables when calculating cost. As researchers and online instructors, the authors recommend early intervention activities performed by email and text messaging at many opportunistic intervention points during the course of the instruction. As well, developing an *intervention strategy* prior to course beginning to assist in planning and preparation is advocated and recommended.

Introduction

Research about online students reveals that different types of students perform differently in online classes; some students need more support than others to be successful. Equal access to education opportunities and successes is one of Sloan's five pillars of online success, and it is a major concern for educators nationwide (Hewett et al., 2011). Students who struggle with online learning must have access to support and opportunities to develop the skills necessary to be successful in online classes. A reconsideration of Moore's Theory of Transactional Distance (1993) with specific regard to the *program structure* element where Moore discusses "advice and counsel" is a foundational platform from which to suggest successful intervention strategies instructors can implement to help writers who are struggling in Online Writing Instruction (OWI) courses. Interventions can be cost-effective and increase student and teacher satisfaction.

Studying Student Success in Online Writing Instruction

Researchers attribute student success in online courses to a wide range of varying characteristics and circumstances such as academic subject, student personality traits, student/instructor experience, and many others. However, even students with variables in their favor occasionally struggle in online writing instruction (OWI) courses, and the instructor is challenged to intervene and facilitate success.

Students who need more instructor support may express this need in a variety of ways including missed deadlines and class meetings, hesitation in becoming engaged in online interactions, and failed assignments or exams. Many times, these students are labeled "at-risk" students. The U.S. Department of Education defines an "at-risk" student as one who is likely to fail at school (Archambault et al., 2010). Lack of engagement can cause a student to become at risk for failing an online writing course; however, it is just as likely that there are

other reasons a student could be at-risk for failing to complete a course. As such, researchers widely agree that there is no such thing as a "typical" at-risk learner (Archambault et al., 2010; Watson and Gemin, 2008).

General Characteristics of OWI Instruction

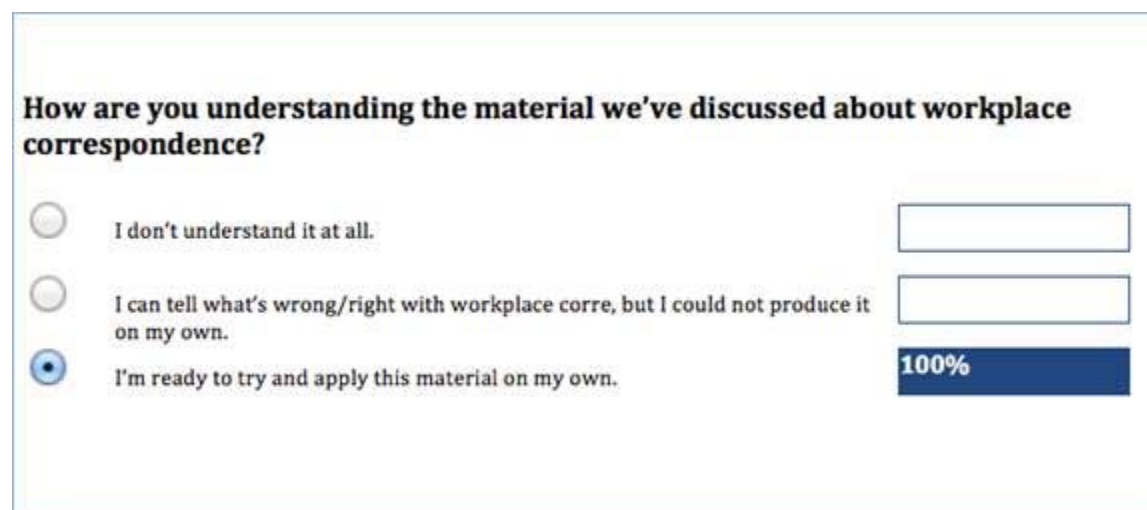
Most scholars agree that more research needs to be done about whether some academic subjects are easier to learn through online instruction (DiPietro, Ferdig, Black, and Preston, 2008; O'Dwyer, Carey, and Kleiman, 2007). Additionally, instructors will benefit from an understanding of where OWI is situated in a continuum of academic subjects taught online. Learning to write effectively is a crucial skill in the 21st century workplace, and the dramatic increase in online learning options finds OWI has grown in popularity and necessity (The Sloan Consortium, 2011; U.S. Department of Education, 2011). Online Writing Instruction shares many features with other online course subjects—it makes use of technology, reading, discussions, lectures, and group work. However, because writing is a social, recursive, and generative process (Hewett et al., 2011), a key aspect of writing is *thinking* (Creswell, 2009), and facilitating thinking is a complex teaching endeavor whether it takes place in a face-to-face or an online environment.

Student and Instructor Success With OWI

Particular types of students have been shown to be more responsive to complex teaching methods and thus, may be more effective in online classes. In general, students who are self-directed, independent, and mature do well in online courses including OWI courses (Dickson, 2005; Rice, 2006; Roblyer, 2005; Ronsisvalle and Watkins, 2005; Smith, Clark, and Blomeyer, 2005; Sun, Tsai, Finger, Chen, and Yeh, 2008).

Student and instructor experience with online learning can affect successful completion of online courses, including OWI. As helpful as is student experience in online learning, instructor experience is even more helpful. In fact, Ronsisvalle and Watkins (2005), in their comprehensive overview of distance education literature noted that experience as an online instructor is correlated with a higher retention rate in students. As noted by many researchers, online instruction is not a simple relocation of resources from paper to digital formats. Online instruction is an entirely different way of teaching and learning (Cavanaugh, Barbour, and Clark, 2009; DiPietro et al., 2008; Tucker, 2007). For example, an OWI instructor may lecture briefly while showing pictures and slides for students to reference, but the instructor does not have the opportunity to scan a group of faces and determine who needs more information. Instead, the instructor must engage students in other digital-only ways to "take the emotional temperature" (Hardiman, 2012, pg. 45) of the class and increase interaction with the students, such as the anonymous poll in Figure One or other methods. Prior experience with online learning helps students know what to expect, and it helps teachers understand how to engage OWI students to facilitate successful completion of a course.

Figure One: Using a Poll to Take the Emotional Temperature of the Class



The ability to engage online students in OWI supports the success and retention of all students, especially at-risk students (Archambault et al., 2010; DiPietro et al., 2008). Engagement can be especially difficult in OWI, but it is critical for retention. Engagement can be achieved through interaction and intervention at

strategic opportunities as a course proceeds. Interaction and strategic intervention are skills an online instructor may facilitate or use in an effort to provide an exemplary online course experience. As such, in an effort to describe the exemplary online educator, Edwards, Perry, and Janzen (2011) studied nursing and healthcare graduate students using narrative inquiry in an effort to understand, via storytelling, what qualities the students found in exemplary online teachers. The three themes that emerged closely follow a *communities of inquiry* model of cognitive presence, teaching presence and social presence. The findings conclude with a description of the exemplary online educator (summarized below). Embedded in the description of an exemplary online educator are instructor actions that embody engagement through interaction and intervention:

Exemplary teachers challenge learners: Exemplary teachers encourage students to do their best work every day. They challenge learners with questions of validity, and require them to back their claims with evidence. These teachers provide feedback, which motivates the student to higher achievement.

Exemplary teachers are affirmers: Exemplary teachers affirm student effort with encouragement and a valuation of the individual. They recognize an individual's potential and help them reach success. An exemplary teacher also watches for and addresses difficulties students may have in processing material. In addition, affirmation behavior increases the student's self-efficacy, locus of control, and ability to self-affirm. The teacher may also show affirmation by setting a climate of respect in the classroom.

Exemplary teachers are persons of influence: Exemplary teachers let students know they care about their progress in the course as well as their personal well-being.

As can be seen, the common theme in these descriptions is engagement, interaction, and strategic intervention with learners. Indeed, interacting with students to engage them in learning is widely recognized as a necessary skill in online teaching. Another way interaction can be facilitated is with a supportive class structure including online chats, group projects, multi-media presentations, or other technological mediations, which recognize that the structure of an online class is important to student satisfaction with the learning. Additionally, students may have different structural needs, and this means that the course and syllabus must be somewhat fluid in order to use structure to achieve the best results (Stein, Wanstreet, Calvin, Overtoom, and Wheaton, 2005).

Student success in online courses can be attributed to a wide range of varying characteristics and circumstances such as course content, student personality traits, student experience, instructor experience, and many others. However, even students with variables in their favor occasionally struggle in online writing instruction (OWI) courses, and the instructor is challenged to intervene and facilitate success. Overall, instructors may (a) ensure curriculum is relevant to student career or degree plans, (b) determine prior to the class beginning which students do not have experience with online learning, and (c) encourage open communication and interaction to engage students in the learning process (d) strategically intervene as needed to guide students to successful course completion.

Assisting Struggling Students

Because at-risk learners vary widely in their personal or educational issues, researchers advocate early identification and intervention to assist struggling students (Archambault et al., 2010). Archambault et al. recommend identifying assessment and prediction tools, models, and instruments used to remediate student knowledge, skills, and abilities to ensure success in distance learning. In other words, how can we assist at-risk (and other) students who do not already have finely developed traits essential to distance learning—self-direction, independence, maturity, and others? As a caution about the use (or misuse) of assessment and prediction tools, Rose and Blomeyer (2007) suggest due diligence should be used when assessing potential students. The potential abuse of predictive instruments to selectively exclude academically at-risk students from admission to online schools and online programs presents serious legal risks. For this reason, pre-assessment for the purposes of exclusion is not recommended, but it can be an effective tool in OWI (as in the pre-course questionnaire in the next section) to help students understand their own learning strengths and weaknesses.

An intervention strategy is a plan for enabling and encouraging student success in OWI. An intervention strategy can be specific to an instructor, or part of a department-wide commitment to students. An intervention

strategy has been shown to be most successful when used early and at particular times as the OWI course progresses. It can be cost-effective if it is kept simple, and an instructor can use intervention as a way to know they have done all they can for an at-risk learner.

Many researchers believe the need for intervention strategies can be minimized by increasing the amount of interaction provided in the course (Abrami, Bernard, Bures, Borokhovski, Tamim, 2011; Allen et al., 2002; Archambault, et al., 2010; Archambault, and Crippen, 2009; Cavanaugh et al., 2009; Chen, Ko, Kinshuk, and Taiya, 2004; Dickey, 2004; Dickson, 2005; Edwards et al., 2011; Elluminate, 2006; Herring, 2004; Iqbal, Kousar, and Rahmen, 2011; Kanuka, Rourke, and Laflamme, 2007; Kanuka, 2011; Roblyer, 2005; Stein et al., 2005). Interaction is certainly one way to increase engagement and encourage students to attend class and meet deadlines. However, not all students cite lack of interaction as their reason for not engaging with the course material (Archambault et al., 2010). Another key element to consider is the impact that early intervention plays in student engagement.

The Importance of Early Intervention

Early intervention may allow a teacher the opportunity to assist a student in successfully completing an OWI course. A teacher may have contact with students during class meetings and also outside of regular class time. Contact with students generally falls into one of two categories—reactive, where the teacher responds to a student-initiated inquiry, and proactive, where the teacher initiates contact with a student. Teachers most often experience reactive contact with self-directed, independent, and mature students. These students email the teacher to request clarification, ask questions, or share information. By contrast, intervention is considered proactive contact; intervention is when the teacher takes the initiative to contact a student for a specific reason in either a teaching or an advisory environment (Simpson, 2004).

To understand what intervention is and how it works, it is important to have some understanding of Moore's Theory of Transactional Distance, which has been used to describe programs in distance learning (Stein et al., 2005). Although critics say it lacks realism (Giossos, 2011), the theory remains useful in constructing the core elements of distance education pedagogy. The core elements are *dialog*, *learner autonomy*, and *program structure*, which is where Moore also discusses intervention. What follows is a consideration of these key elements.

Dialog describes a positive interaction or series of interactions, which occur between teachers and students. Dialogue is purposeful, constructive, and valued by both teachers and students. "Each party in a dialogue is a respectful and active listener; each is a contributor, and builds on the contributions of the other party or parties... with value placed on the synergistic nature of the relationship of the parties involved" (Moore, 1993, pg. 27). According to Moore, a dialog can occur explicitly, but it can also occur when there is no back/forth between the teacher and student because it is implied.

Learner autonomy is defined as the ability to be self-directed, to work without guidance, and to develop a personal study plan. It is the extent to which the learner determines the goals, the learning experiences, and the evaluation decisions in the program.

Program structure is a quality that expresses the rigidity or flexibility of the program's educational objectives, teaching strategies, and evaluation methods. Program structure describes the extent to which a program can accommodate or be responsive to each learner's needs. A program with an open structure supports interaction among instructors and learners, so the instructor can understand the needs of the learner.

Intervention is a key component of *program structure* in Moore's theory of transactional distance where the role of advice and counsel is discussed. According to Moore:

Give advice and counsel. The instructional programme must provide guidance on the use of learning materials, on techniques for their study, and some form of reference for individuals who need help with developing study skills and dealing with study problems. Many of these problems can be anticipated and provided through structured teaching materials, but eventually, many must be dealt with on an individual basis by telephone, mail, e-mail, and face-to-face interviews (Moore, pg. 29, 1993).

In a program with an enabling structure and a low dialog, the transactional distance is increased, and the

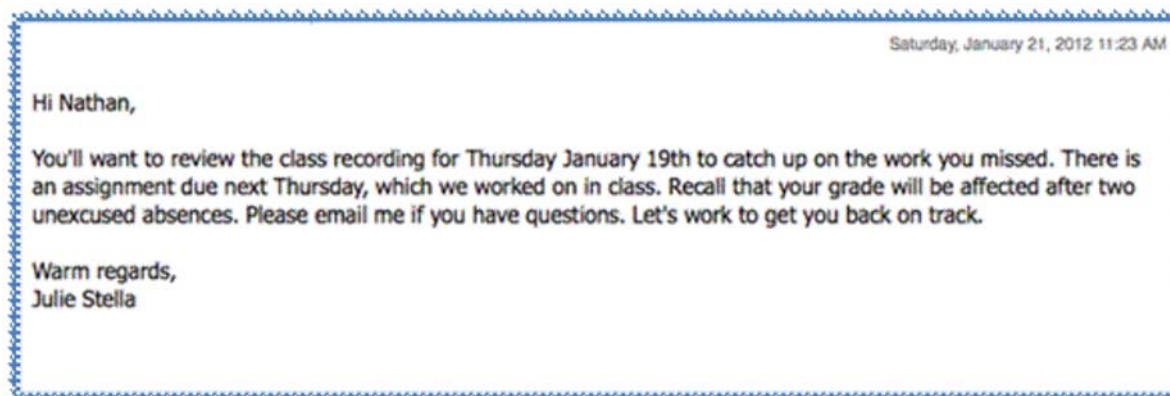
learner must exercise more autonomy. Thus, these three components strike a balance in distance education programs such as OWI programs. If a student is less self-directed, the teacher might implement intervention in the program structure to balance the need. In a face-to-face course, the level of intervention advocated for struggling OWI students may be inappropriate or intrusive. After all, adult learners can make their own decisions and live with the consequences. However, the added feature of transactional distance makes intervention an effective way to decrease transactional distance, which results in student success. Intervention as advice and counsel may enhance retention through course completion.

Successful OWI Interventions

Successful interventions can use many different types of media, and they may be implemented at various intervention points throughout an OWI course. Instructors advocate the use of telephone calls to the student, postcards, and emails (Visser, 1999; Chyung, 2001; and Rekkedahl, 1982). Text messages to the student may also be considered.

Successful intervention messages follow Keller's ARCS model (Attention, Relevance, Confidence and Satisfaction) where the message must (a) capture the student's *attention*, (b) be seen to be *relevant* to the student's needs, (c) evoke *confidence* in their ability to do the work, and (d) promote their *satisfaction* with their experience. Of the different media available to the online writing instructor, email and text messaging are logical choices because of their convenience and low relative cost. See Figure Two for a sample email from a teacher to a student using the ARCS model to encourage the student without badgering him/her. In the example, the student missed a class meeting.

Figure Two: Sample Email from a Teacher to a Student Using the ARCS Model



Another email intervention using ARCS can be performed at the post-assessment intervention point. If an OWI instructor knows the background and experience of the students, they can intervene proactively for students with little online course experience. For example, many of these characteristics and personality traits might be managed with a pre-course intervention sent via email where the instructor asks the students to respond to a questionnaire:

1. What is your major?
2. If you are currently employed in a career job, does your workplace support and reward the degree path you are pursuing?
3. What is your experience with online learning?
4. What other roles are you responsible for through the duration of this course (examples: manager, parent, caregiver, etc.)
5. Name three personality traits you think are essential for success in online learning.

The instructor can use the questionnaire results to understand the specific needs of the OWI student and the needs of the section as a whole. Also, even though an instructor cannot change a student's life situation or personality traits, this intervention can help the instructor prepare for challenges that may come to bear later in the semester. This intervention decreases transactional distance by increasing dialog and allowing a more flexible program structure where the OWI section is tailored to student experience, student life-circumstances, and other variables shown to affect retention.

As can be seen, email is an effective way to communicate intervention messages using the ARCS model. However, text messaging between instructors and students may be considered as well. Text messages are a relatively new and unique tool of intervention, which deserve special consideration.

According to the 2011 Pew Internet and American Life Project, young adults are by far the most enthusiastic users of text messaging. Indeed, this group receives and sends an average of 50 text messages each day. Many of these students consider digital communication a part of their everyday lives because they grew up with technology (Al-Hazza and Lucking, 2007; Baker, 2012; Marshall, 2010). Among students, both school and coursework are often the subject of text messages, and texting has even been shown to have a positive affect on student GPA (Al-Hazza and Lucking, 2007; Paul and Gelish, 2011; Wilson and Allen, 2011).

Texting can provide Moore's *advice and counsel* in a less confrontational or schedule-dependent way than a phone call, Skype, or chat meeting. Thus, the student is allowed some breathing room to reflect upon the situation (Barak, Hen, Boneil-Nissim and Shapiro, 2008; Kaplan, Wade, Conteh, and Martz, 2011). Similar to email, texting allows the student some control over the timing of response; however, text messages require economy of response due to character limits. These limits may help students prioritize information, but they may frustrate students as well. The intimacy and immediacy of text messaging may promote stronger relationships with students. The immediacy can be particularly helpful in OWI classes because the assignments are often scaffolded and built through iterative drafts where any missed assignment can begin a negative cycle for the student. Texting interventions can also help in any online subject where projects build from conception to completion as the semester progresses. Overall, texting is quite convenient for both the instructor and the student.

Since texting is a relatively new way to contact students, instructors should proceed with caution. Indeed, Robinson and Stubberud (2011) discovered that texting might be considered quite intimate depending on the social situation. They used the MAT2R model to rank communication methods for school/work situations compared with social situations. They discovered that most students in their research study preferred text messaging in social situations, but not for school/work situations. In addition, any online instructor, including OWI instructors, must consider the privacy of a student, as in the case of an unlocked phone where any person (friend, spouse, or parent) may reply to the text message.

Texting is a common way of broadcasting public or targeted information to students, so students may be accustomed to receiving general university information via text message (Librero, Ramos, Ranga, Trinona, and Lambert, 2007; Marshall, 2010; Yelton, 2012). Thus, these students may find a text message (using the ARCS model) from their course instructor a natural progression of the medium and a successful intervention in the teaching of writing.

Unique to OWI is an importance placed on writing practice. Writing is a lot like sports in that a student might read about it all they wish, but actually *practicing* writing is the best way to become expert at it. An instructor may consider incorporating the importance of writing practice in the course policies by adopting a grading practice about accepting late work, which reflects its importance. Such a policy might mildly penalize late work in small percentages, while still encouraging the student to complete the work. For example, the course policy might be that late work is reduced by 10 percent if turned in three days after the due date, and 20 percent if turned in after that. Of course, an instructor must adjust the percentages to match their tolerance for accepting late work. However, the important point is the work should never pass a date where it is no longer worth any points (except after the course ends) Certainly, OWI students must learn to write on a deadline, but recognizing the importance of writing practice with mild penalties contributes to *writing skill development*, which is important for all levels of writers.

Instructors may also perform successful interventions by addressing students privately and directly in synchronous classes using the ARCS model and wording similar to that in the email in Figure Two. Instructors may also perform successful interventions upon receiving a completed assignment of unacceptable quality from a learner—in that case, the instructor can comment on the assignment using the ARCS model and return it to the student requesting they rewrite the assignment. The successful intervention allows the instructor to partner with the learner and provide guidance, a crucial part of an OWI programs structure (Moore, 1993).

Possible Intervention Points

Many possible intervention points will present themselves throughout the course, but researchers advocate early intervention for the most positive effect (Archambault et al., 2010; Simpson, 2004). If the first intervention point is allowed to pass without incident, the student may begin passive withdrawal (Simpson, 2004) of the course where they lose interest with the idea of attending class or meeting the deadlines of the course. Also, intervention is even more compelling in OWI courses because writing instruction often makes use of scaffolded assignments, which build from first draft to final (Patterson, 2001). These many-tiered assignments offer a student multiple points of success or failure along a process, which can have cascading effects. Possible intervention points and strategies follow:

- Required *Ice Breaker* activities at the beginning of the first class and subsequent classes if needed to establish a dialog among the students and with the instructor and lessen the transactional distance
- Post-assessment intervention (if an assessment is administered prior to beginning the course) where the instructor might contact students who are flagged by assessment tools to proactively offer suggestions for successful OWI course completion
- Non-submission of an exam or assignment intervention (missed deadline)
- Failure to attend class (in synchronous courses)
- Failure of an assignment
- Pre-examination where the instructor contacts OWI learners to remind to remind them of the details of an upcoming exam or assignment

Cost effectiveness

Intervention may seem a "high-touch" endeavor, which can mean high-cost in terms of time spent in the individualized interventions. However, retaining students through graduation improves their earning power significantly over students who do not graduate from college (Lacey and Crosby, 2004). In addition to student earning power, retention of students is the key to educational providers when considering cost effectiveness. The extra time spent with interventions in the short-term does have associated costs, but the long-term revenue gained from student retention should offset and even exceed those costs. Also, the use of low-cost technologies combined with a plan for intervention can be cost-efficient, consistent, timely, and measurable, which is always helpful in allocating university resources (Dickson, 2005).

Concluding Recommendations about OWI Interventions

Intervention, a powerful and crucial element of *program structure* in Moore's Theory of Transactional Distance (1993), can be used to lessen transactional distance, so struggling students might find success in OWI courses. It is recommended that interventions occur in the form of email and text messages because both are convenient and relatively low-cost ways to deliver an intervention message that captures the student's attention, is seen to be relevant to their needs, evokes confidence in their ability to do the work, and promotes their satisfaction with their experience (Simpson, 2004). Instructors might consider developing a protocol for intervention, which describes what action to take at various intervention points (email the learner, remind the learner in class, provide detailed feedback on low-quality assignments and request a rewrite). Early, if not immediate, intervention is recommended at the first sign a learner is struggling. Early intervention prevents the learner from becoming overwhelmed by cascading deadlines, which may happen with the use of scaffolded writing assignment progressing from first draft to final draft (Patterson, 2001; Simpson, 2004). The long-term goal of any intervention effort is retention—enabling students to stay in school until they complete their degree program and graduate (Simpson, 2004). Retention is a strong indicator that students are satisfied with their education (Stein et al., 2005), teachers have increased job satisfaction (McCombs, Ufnar, and Shepherd, 2007), and graduation rates of institutions rise. And, "the key to retention in any institution is proactive contact or intervention from the institution to its students" (Simpson, 2004, pg. 80).

To reap the benefits of intervention, instructors should consider composing an intervention strategy (or protocol) before an OWI course begins. With a specified protocol, it becomes easier to apply the strategy in a fair and non-judgmental manner. Also, it is easier to act according to a pre-defined strategy than to invent a specialized course of action for every incident and every student. As well, the use of a pre-defined teaching strategies and protocols is well-documented and described in face-to-face pedagogy (Easton, 2009; McDonald, Mohr, Dichter, and McDonald, 2003). Consider also composing a department-wide intervention strategy for all instructors in the department, so all instructors may use the strategy at their own discretion and convenience. A pre-defined protocol may seem very rigid, but it can easily be adapted to fit individual situations and student

needs.

In summary, success on online writing instruction depends on the recognition of the importance of early interventions, advanced planning of an intervention strategy and the employment of that strategy using email and texting as a primary delivery modes. If these steps are followed, instructors will find increased student success and satisfaction in online writing instruction courses.

References

- Abrami, P., Bernard, R., Bures, E., Borokhovski, E., & Tamim, R. (2011). Interaction in distance education and online learning: Using evidence and theory to improve practice. *Journal of Computing in Higher Education* , 23 (2), 83-103.
- Al-Hazza, T. C., & Lucking, R. (2007). An examination of preservice teachers' view of multiliteracies: Habits, perception. *Reading Improvement* , 49 (2), 59-72.
- Allen, M., Bourhis, J., Burrell, N., & Mabry, E. (2002). Comparing student satisfaction with distance education in traditional classrooms in higher education: A meta-analysis. *The American Journal of Distance Education* , 16 (2), 83-97.
- Archambault, L., & Crippen, K. (2009). K-12 distance educators at work: Who's teaching online across the united states. *Journal of Research on Technology in Education* , 41 (4), 363-391.
- Archambault, L., Diamond, D., Coffey, M., Foures-Aalbu, D., Richardson, J., Zygouris-Coe, V., et al. (2010). *Research committee issues brief: An exploration of at-risk learners and online education*. Vienna: International Association for K-12 Online Learning.
- Baker, C. (2012). Googling and texting and browsing, oh my! Mentoring and teaching in an electronic age. *Journal of Physical Therapy Education*, 26 (3), 5-17.
- Barak, A., Hen, L., Boniel-Nissim, M., & Shapiro, N. (2008). A comprehensive review and a meta-analysis of the effectiveness of Internet-based psychotherapeutic interventions. *Journal of Technology in Human Services* , 26 (2/4), 109-160.
- Casey, H. (2009). Engaging the disengaged: Using learning clubs to motivate struggling adolescent readers and writers. *Journal of Adolescent & Adult Literacy*, 52 (4), 284-294.
- Cavanaugh, C., Barbour, M. K., & Clark, T. (2009). Research and practice in k-12 online learning: A review of open access literature. *The International Review of Research in Open and Distance Learning*, 10 (1).
- Chen, N.-S., Ko, H.-C., Kinshuk, & Taiya, L. (2004). Synchronous learning model over the Internet. In C.-K. Looi, E. Sutinen, D. G. Sampson, I. Aedo, L. Uden, & E. Kahkonen (Ed.), *Fourth IEEE International Conference on Advanced learning Technologies* (pp. 505-509). Joensuu: IEEE.
- Chyung, S. Y. (2001). Systematic and systemic approaches to reducing attrition rates in online higher education. *American Journal of Distance Education*, 15 (3), 36-49.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Method Approaches* (3rd edition ed.). Sage.
- Dickey, M. (2004). The impact of web-logs (blogs) on student perceptions of isolation and alienation in a web-based distance-learning environment. *Open Learning*, 19 (3), 279-291.
- Dickson, W. P. (2005). *Toward a deeper understanding of student performance in virtual high school courses: Using quantitative analyses and data visualization to inform decision making*. Michigan Virtual University. Naperville: Learning Point.
- DiPietro, M., Ferdig, R. E., Black, E. W., & Preston, M. (2008). Best practices in teaching k-12 online: Lessons learned from Michigan Virtual School teachers. *Journal of Interactive Online Learning*, 7 (1).

- Easton, L. B. (2009). *Protocols for Professional Learning*. Alexandria, VA: ASTD.
- Edwards, M., Perry, B., & Janzen, K. (2011). Making of an exemplary online educator. *Distance Education*, 31 (1), 101-118.
- Illuminate. (2006). *The impact of synchronous online learning in academic institutions: Customer experiences from K12 and higher education*. Elluminate.
- Giossos, Y., Koutsouba, M., & Lionarakis, A. (2009). *Reconsidering Moore's transactional distance theory*. Retrieved from European Journal of Open Distance and ELearning: <http://www.eurodl.org/?article=374>
- Hardiman, M. (2012). *The Brain-Targeted Teaching Model for 21st Century Schools*. Thousand Oaks, CA: Corwin.
- Herring, M. C. (2004). Development of constructivist-based distance learning environments: A knowledge base for K-12 teachers. *Quarterly Review of Distance Education*, 5 (4), 231-242.
- Hewett, B. L., Minter, D., Gibson, K., Meloncon, L., Oswal, S., Olsen, L., et al. (2011). *The State-of-the-art of OWI*. Initial report of the CCCC committee for best practice in online writing instruction (OWI). NCTE.
- Iqbal, M. J., Kousar, N., & Rahmen, F. (2011). Effects of interaction on achievement of distance learners. *International Journal of Business & Social Science*, 7 (2), 289-295.
- Kanuka, H. (2011). Interaction and the online distance classroom: Do instructional methods effect the quality of interaction? *Journal of Computing in Higher Education*, 23 (2), 143-156.
- Kanuka, H., Roarke, L., & Laflamme, E. (2007). The influence of instructional methods on the quality of online discussion. *British Journal of Educational Technology*, 38 (2), 260-271.
- Kaplan, D. M., Wade, M., Conteh, J. A., & Martz, E. T. (2011). Legal and ethical issues surrounding the use of social media in counseling. *Counseling and Human Development*, 43 (8), 1-12.
- Keller, J. (2004). Development of the ARCS model of instructional design. *Journal of Instructional Development*, 10 (3), 2-10.
- Lacey, J. N., & Crosby, O. (2004). *Job Outlook for College Graduates*. Bureau of Labor Statistics. Washington, DC: Office of Occupational Statistics and Employment Projections.
- Librero, F., Ramos, J., Ranga, A. I., Trinona, J., & Lambert, D. (2007). Uses of the cell phone for education in the Philippines and Mongolia. *Distance Education*, 28 (2), 231-244.
- Marshall, D. W. (2010). Incorporating texting into your communications mix. *College & University*, 86 (2), 57-62.
- McCombs, G. B., Ufnar, J. A., & Shepherd, V. L. (2007). The Virtual Scientist: connecting university scientists to the K-12 classroom through videoconferencing. *Advances in Physiology Education*, 31, 62-66.
- McDonald, J. P., Mohr, N., Dichter, A., & McDonald, E. C. (2007). *The Power of Protocols: An Educator's Guide to Better Practice* (2nd ed.). New York: Teacher's College Press.
- Moore, M. G. (1993). Theory of transactional distance. In M. G. Moore (Ed.), *Handbook of Distance Education* (2nd ed., pp. 22-38). Mahwah, NJ: L. Erlbaum Associates.
- O'Dwyer, L. M., Carey, R., & Kleiman, G. (2007). A Study of the effectiveness of the Louisiana Algebra I online course. *Journal of Research on Technology in Education*, 39 (3), 289-306.
- Patterson, E. W. (2001). Structuring the composition process in scientific writing. *International Journal of Science Education*, 23 (1), 1-16.
- Paul, M., & Gelish, L. (2011). College students' texting habit and their academic performance. *Proceedings of*

the Academy of Educational Leadership, 16, pp. 67-72. Las Vegas, NV: Allied Academies International Conference.

Rekkedahl, T. (1982). The drop out problem and what to do about it. In D. J. Stroud, & J. Thompson (Ed.), *Learning at a Distance--A World Perspective, Twelfth World Conference* (pp. 118-122). Vancouver: International Council for Distance Education.

Rice, K. L. (2006). A comprehensive look at distance education in the k-12 context. *Journal of Research on Technology in Education*, 38 (4), 425-448.

Robinson, S., & Stubberud, A. B. (2012). Communication preferences among university students. *Academy of Educational Leadership Journal*, 16 (2), 105-113.

Roblyer, M. D. (2005). Who plays well in the virtual sandbox? Characteristics of successful online students and teachers. *SIGTel Bulletin*, 2.

Ronsisvalle, T., & Watkins, R. (2005). Student Success in Online K-12 Education. *Quarterly Review of Distance Education*, 6 (2), 117.

Rose, R. M., & Blomeyer, R. L. (2007). *Research committee issues brief: Access and equity in online classes and virtual schools*. North American Council for Online Learning.

Simpson, O. (2004, 19 1). The impact on retention of interventions to support distance learning. *Open Learning*, 79-96.

Smith, R., Clark, T., & Blomeyer, R. L. (2005). *A synthesis of new research on K-12 online learning*. Naperville: Learning Point Associates.

Stein, D. S., Wanstreet, C. E., Calvin, J., Overtoom, C., & Wheaton, J. E. (2005). Bridging the transactional distance gap in online learning environments. *The American Journal of Distance Education*, 19 (2), 105-118.

Sun, P.-C., Tsai, R. J., Finger, G., Chen, Y.-Y., & Yeh, D. (2008). What drives a successful e-Learning? An empirical investigation of the critical factors influencing learner satisfaction. *Computers & Education*, 50, 1183-1202.

The Sloan Consortium. (2011). *Going the distance: Online education in the United States*. Retrieved December 5, 2011, from Sloan Consortium: http://www.sloanconsortium.org/publications/survey/going_distance_2011

Tucker, B. (2007). *Laboratories of reform: Virtual high schools and innovation in public education*. Washington: Education Sector Reports.

U.S. Department of Education. (2011, December 5). *Distance Education Courses for Public Elementary and Secondary School Students: 2009-2010*. Retrieved from National Center for Education Statistics: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012008>

Visser, L. (1998). *The development of motivational communication in distance education support*. Enschede, UK: University of Twente.

Watson, J., & Gemin, B. (2008). *Using online learning for at-risk students and credit recovery*. North American Council for Online Learning.

Wilson, D., & Allen, D. (2011). Success rates of online versus traditional college students. *Research in Higher Education*, 1-9.

Yelton, A. (2012). Bridging the digital divide with mobile services. *Library Technology Reports*, 48 (1), 19-24.

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