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# Four Families of Multi-variant Issues in Graduate-level Asynchronous Online Courses

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## **Abstract**

This is the first of several papers developed from a faculty and student perspective describing a new distance learning (DL) model. Integral to the model are four interrelated families of multi-variant issues, referred to here as (a) the academic divide, (b) student misalignment, (c) administrative influences, and (d) the use of student satisfaction (evaluations) and retention as the “gold standard” for academic excellence. These families emerged from a reexamination of an elective, graduate level, asynchronous, online course that took place one year after the course was offered. In this article, these four families will be introduced, defined, described, and analyzed. Warning: this model will be described in new terminology and therefore may be unfamiliar to DL practitioners. However, the authors believe that many DL practitioners will quickly recognize the concepts and foundations upon which the model and terminology are derived. The authors go on to illustrate how these issues, if not properly addressed, can have significant negative, often disruptive, impacts at all phases (course design, development, implementation; faculty evaluations; and marketing of classes) of asynchronous course offerings. Some recommendations are offered as to how to alleviate the problematic potential inherent in these issues.

Unique to this model is the combined experiences and perspectives of the authors. The first was from the faculty member offering the course who had over twenty years of administrative oversight and program development of distance learning programs and courses. The second author's set of insights came from graduate student's perspective in the course who was in her final semester of her doctoral studies, but who also was the head of corporate training in a large company and had developed topic-specific training programs, taught in a Midwestern university as well as had taken multiple courses online. (Authors' role and participation in ABCD 888 – Fairchild was the instructor for course; Gisburne was one of the students enrolled in the course.) From their convergent experiences and discussions emerged the four interrelated areas that merited further study. The following is a result of their collective research and unique perspective.

## **Introduction**

The educational environment is constantly changing as a result of demographic shifts and

technological advances, often with unpredictable outcomes to the learning mission and setting. In an attempt to meet the growing needs for program development skills, in January 2001, ABCD 888, a graduate-level asynchronous online course in program and coursework development was offered. The course was originally designed and targeted for practitioners who needed to meet the requirements for a minor in a graduate program within a specific department. However, the concepts, skills, and assignments in the course were advertised as being applicable to general program, curriculum, or instructional design. As a result, several students from outside the originating department enrolled in the course, using it as an elective for their own programs of study.

ABCD 888 was advertised as a pilot class. That is, its content was being offered for the first time in this department and with this faculty member. The course content, however, had been converted from a traditional F-2-F class to this particular online format. Not only was it the first time the faculty member had taught a graduate-level class entirely online and in an asynchronous format, it was also the first time she had taught this course. As a result, greater attention was given to monitoring the course's content, constructs, students' progress, and evaluation outcomes.

The targeted audience was working practitioners within a specific field who were seeking a master's degree to improve their overall professional performance. However, the education experiences of enrolled students varied from those enrolling in their first master's degree class to those completing their final class in a doctoral program. Practical, real life, professional related experience also varied from none outside the student/school environment to over thirty years of experience in a related field. Distance learning experience varied from this being their first distance delivered class and being unfamiliar with the rigors or related technology to those who had experienced multiple graduate classes through distance learning methodology and/or who managed distance learning training in a corporate environment. Ages varied from early twenties to mid-fifties.

## **Methodology**

Nineteen students enrolled in the elective online course, twelve completed the course, two took incompletes, and five withdrew. In an attempt to gather students' insights into the distance education experience and insights for future improvements, a series of data gathering methods and sources were used. These included, but were not limited to, a compilation of the instructor's notes from weekly one-on-one phone conversations, e-mails, discussion board entries and interaction, and the traditional end-of-course student evaluations. In addition, notes and data were collected from parting/exit interviews and two qualitative surveys were distributed to all the students who enrolled in the course, including those who had withdrawn.

A functional analysis approach was used in an attempt to understand the course evaluations and course outcomes. That is, we attempted to synthesize group demographics, interviews, personal conversations, threaded discussions, and other correspondence along with the survey responses, and exit responses. In this way we hoped to understand both individual composites and issues as well as to better understand the group dynamics at play during various group activities. We found that cultural concerns (Sanchez & Gunawardena, 1998), gender (Burge, 1998; Gunn, McSparran, Macleod, & French, 2003), student/faculty interaction, responsiveness, and feedback (Kashy, Albertelli, Bauer, Sashy, & Thoennesen, 2003), and group interaction issues (Lobel, Neubauer, & Swedburg, 2002; Oren, Mioduser, & Nachmias, 2002) were relevant to the group composition dynamics. Students' ongoing dialogue which revealed their expectations and motivations proved the most insightful. These pointed us toward interrelated multivariate issues often directly

associated to academic divide and administrative issues (e.g., misunderstandings and misinterpretations of marketing rhetoric) that created the majority of the misalignment and student dissatisfaction.

Using macro-application grounded theory (Glaser), to distill, sort, and synthesize the data, the issues that emerged were framed and then explored for their interrelated implications. The issues fell into four interrelated families, which we generally identified and termed as a) the academic divide, b) student misalignment, c) administrative issues, and d) student evaluations as “gold standard.”

## **Terminology & Results**

### *Academic Divide – Certifications, Degrees, Formal and Informal Professional Training*

The academic divide can be generally described as the academic, functional, and social distinctions attributed to each progressively complex stage of the learning continuum. Examples of the different stages and functions in the academic divide include, but are not limited to: Degreed programs – high school, associate, bachelors, masters, and doctoral; certification programs – training, professional, post-graduate/professional development. In addition, in the academic setting, there are internships, practicum, post-graduate and research fellowships, and specialty designations. Each formal stage or level has a specific function in the learning process. According to Eaton (ND) the purpose of a degree is to “organize educational experiences and establish academic expectations...organizing principle for educational experience...compared to other credentials, is its provision of a comprehensive educational experience that includes general education, a major, and education for a profession.” He goes on to say that “we need to proceed carefully when designing a quality higher education experience that culminates in a degree for a distance learning environment...[T]here are two dangers to be avoided here: failing to distinguish between the degree and a training experience, and failing to ensure that all the major elements of the degree (general education, the major, and the professions) are present in an electronic environment.” The differences in the mission and objective of the academic divide have profound impacts on the course constructs and role of faculty in F-2-F coursework. With that in mind, like Morse (2003) who was inquiring about multicultural issues in the DL environment, we also asked the question – does one size fit all?

One of the key issues in the mission differentiations set forth in the academic divide involves translating the graduate-level mission and objectives into a more restrictive learning environment. In 2000, a National Education Association (NEA) survey suggested that web-based instruction could provide and even help improve students’ access to information and course materials, improve quantitative skills, and help them master subject matter. It went onto to point out that faculty members surveyed thought that the medium was not as effective in three areas: strengthening students’ group problem-solving skills, improving verbal skills, and helping students deliver better oral presentations. In their research, Krevovic & McCambridge (2002) had similar observations and went on to point out that DL students were at a disadvantage, not being able to demonstrate their skills competencies or to develop strong interpersonal rapport with instructors, as do F-2-F students. The weaknesses may not be overtly apparent in undergraduate or introductory courses. However, graduate-level courses focus on skills development and the transformation of abstract knowledge to tacit applications. As a result graduate and doctoral levels are directly impacted by the medium’s weaknesses especially skills development and demonstration, which are not easily translated to and demonstrated in an asynchronous format (Olgren, 1998).

In order for these graduate-level course mandates to be accomplished, then, faculty/student roles and functions require an increased interaction, which in turn results in an increased expenditure of time, energy, and resources. In addition these graduate-level requires the use of different or more varied use of course constructs, e.g., use of multimedia options and (c) avenues for students' to develop skills and tacit applications of abstract knowledge. All of these are possible in the online setting through the maximization of the media and interaction opportunities (Anderson & Garrison, 1998; Peters, 2000), but place more demands on the faculty and resources, if they are to be done well (Garrison, 2000).

ABCD 888 utilized multimedia formats, weekly assignments with deadlines, and applications development. The course also required student contributions to discussion board postings and peer-reviewing postings, student/faculty phone and email contacts and feedback, and peer/peer assignment feedback. From an overall perspective, the discussion board interactions were generally consistent with research on the online messaging patterns and content (Oren, Mioduser, & Nachmias, 2002). However, the students' ratings and comments as reflected showed marked inconsistencies and disparities. Satisfaction ratings, for the most part, ranged from moderate to high; then there was the one low rating. Qualitative feedback also reflected a full spectrum of concerns, with no overall consensus. The spectrum of student satisfaction/dissatisfaction feedback went from it was "the best online class" they had ever taken to the class did not make sense and was not applicable to the student's workplace needs and issues. More traditional students, i.e., those just entering a graduate program, having little or no workplace experience within their chosen field, and/or having taken fewer than three asynchronous graduate-level online courses seemed to have the most difficulty with academic divide issues. There were seven such students in this course. They also experienced problems relating abstract to workplace and tacit situations as well as academic divide and instructional platform misalignment issues.

From a teacher's perspective, it was difficult challenging the most advanced (doctoral students) while providing the structure to which students were accustomed to receiving in their bachelor's programs. It was also challenging to design projects to challenge the practicing professional to apply concepts when in the same class a student is learning the concept for the first time. From a student's perspective, the course constructs and use of multi-media instructional delivery and interaction criteria was useful. However, there were times when the topical discussions and peer-reviews were somewhat stunted by those students with limited, first-hand, experiential (not abstract) understanding of workplace issues. Both of us noted that those students' discussion board contributions and peer-reviews often reflected idealistic conceptualizations of what they expected to encounter when they get out into the workplace, rather than what they are likely to actually encounter.

Conversely, several of the students, both over-qualified and under-qualified, found the focused application, (albeit general program development) that was designed for the target audience and program, difficult to adapt to their more general application needs. As a result, these students' divergent academic agendas, limited academic knowledge, and/or skills development were equally evident in their discussion contributions, peer-reviews, and comments, which had limited benefits to classmates.

### *Student Misalignment*

In our examination, we found that our concept of student misalignment emerged from those situations that we could identify a dissonance between students' expectations and the course content and/or constructs. This student misalignment was often expressed by disgruntled comments, general discontent, and dissatisfaction with a course's component and/or faculty. We

found that student misalignment had several obvious causes, including academic divide issues, but also including the students' expectations, agenda/motivation, and misinterpretation of what was implied by "convenience," a concept used in the marketing online courses and programs.

We also found that student misalignment and student frustration were not synonymous; and while student misalignment can cause frustration, frustrations may not cause or be the cause of student misalignment. In either case, whether the source is unresolved logistical frustrations or misalignment both can inhibit the learners' educational opportunities and result in their dissatisfaction and discontent, which can then produce disruptive results in the online course community and course evaluations. Three of the most often noted multivariate issues that result in student-course misalignment noted in ABCD 888 were:

- Misaligned student agenda, motivation, learning style, and expectations – life experience or lack thereof
- Misinterpretation of course or program expectations – levels and type of participation, interaction, and participation related to instructors expectation; and
- Misinterpretation of marketing rhetoric – e.g., "convenience" being misinterpreted to mean lack of academic rigor, and "student-centered" learning being mistaken by students to mean that they learn only what and when they want and need not meet academic or course expectations

It can also include, but is not limited to, the student's learning style (Boyatzis & Kolb, 1995), gender, and cultural issues that manifests in the students attitudes toward interaction and participation (Thompson, 1998; Burge, 1998; Gunn, McSporran, Macleod, & French, 2003). The research also suggests that gender issues are significant and indicate that male students seek independence, autonomy (as in an electronic correspondence course) and also tend to dominate threaded discussion with their own agendas, while other (especially females) feel more isolated in DL environment, usually female, and seek connection and higher level of interaction. Moreover, the research also indicates men tend to be motivated by "credits toward promotions" instead of career and skills development as are women. Not to mention that frustrations can be the result of technological issues, lack of prompt feedback, and their own failure to count the costs – both financial and time.

In ABCD 888, overqualified professionals expecting an easy "A," individuals expecting the course to be "convenient" having no deadlines and participation requirements, and those with limited abilities to comprehend workplace dynamics were all enrolled in the class. The evaluations and interaction indicated that all of them experienced a degree of misalignment and frustration in the asynchronous online environment at the graduate-level.

From a teacher's perspective, it is difficult to meet the needs of non-targeted clientele. Students enrolled in the class for a variety of reasons. In this class the targeted professionals were pleased to enroll in a course, which allowed them to participate at their convenience throughout the day and week with location being irrelevant. They knew how they wanted to pursue their professional careers and saw how this could be of benefit. Non-targeted students tended to take the class as an elective to meet credit requirements. Many used it as a "holding line" until they learned whether or not their desired courses were available. Many took the class because it was available without knowing how or if it would relate to their career choice. Finding relevancy and practical applications were difficult. Others thought a distance class would be easier than F-2-F and withdrew when they learned otherwise. Still others were disappointed that it was offered online only and would have preferred meeting every week at a set time and location.

From a student's perspective, it was disconcerting to have students with misaligned agendas and/or dropouts. This was a very social and motivated group. There was a student profile section where students submitted a description of their backgrounds, goals, and expectations; some even included recent pictures. In addition, we found that those whose interests diverted from the expectations and interests promoted by the class often were more limited in their interaction. They gave stilted feedback to classmates postings that were void of substance, often being comprised of a single words or trite statements, e.g., "interesting," "good idea," "well written answer." These stilted comments reduced the intended benefit of multiple perspectives for learning and skills development.

### *Administration Influences & Issues: Logistical Considerations, Marketing, Accreditation, and Retention Concerns*

There is an endless list of administrative challenges, issues, and approaches to Distance Learning (DL) reported in the DL literature that directly and indirectly impact course design, development, and implementation. They range from institutional commitment and logistical issues (Frydenberg, 2002; Moore & Kearsley, 2000), transitioning from structural to transactional issues (Garrison, 2000); accreditation (Eaton, ND), resource allocation and return on investment (Strothers, 2002), technical support, marketing and recruitment (Lefor, Benke, & Ting, 2001), intellectual property and copyright, and course and faculty evaluations (Kretovics & McCambridge, 2002; Lobel, Neubauer, & Swedburg, 2002; Olgren, 1998).

The other more difficult issue faced by administrators is how to calculate return on investment or ROI (Strothers, 2002). In many institutions it is assessed in terms of student completion and retention. However, in the case of asynchronous distance education student success strategies (i.e., casual over-enrollment and dropping) may skew the academic excellence evaluations based on student retention.

In ABCD 888, several individuals withdrew from the course throughout the semester. Of the original students who enrolled in the elective online course two took incompletes and five individuals (one female, four males) withdrew. One cited that he felt that the course required too much time and effort while others cited personal reasons. Interestingly, still others cited that they used a strategy of enrolling in "extra" elective course and then later withdrawing from one or more of the courses as part of their online degree-seeking strategy to enhance their academic success possibilities. This enrollment/withdrawal strategy allowed them to ensure adequate number of semester hours as well as enabled them to due a risk analysis regarding the convenience, academic demands of a course, and potential benefits for the student's overall degree plans. This strategy was most often cited in elective course offerings and was seen as a benefits rather than being considered by those who withdrew as being particularly problematic. Unfortunately, this strategy can also send the wrong message to administrators seeking to fill online classes and question the completion and retention numbers. Interestingly, convenience and time saving educational options are both marketing terms and phrases intended to attract the distance education consumer, but at the same time call into question the issues of institutional credibility, academic rigor, standards, and accreditation. Yet, retention and student satisfaction as a merit standard for course and faculty excellence continues to be employed throughout academia.

From an administrator and faculty perspective, while it is important to maximize class enrollment, it is difficult when students enroll for purposes other than those for which the course is designed. Sometimes annual teacher evaluations also include the number of drops and withdrawals from a class. The teacher could be challenged to encourage students to stay in class

even though they are not particularly “aligned” with the goals and purposes of the course. Administration will need to make hard choices regarding the academic integrity and level of difficulty expected of students when designing and marketing classes and in evaluating faculty.

From a students’ perspective, DL offers numerous resource benefits and time management opportunities, two of which are touted in the DL marketing rhetoric to be “student-oriented learning” and “convenience.” Finding courses that are oriented to the needs of particular audiences without the need to travel or attend a scheduled class is a great benefit to fulltime professionals. However, this convenience was not intended to in any way diminishment the amount of time and effort put forth toward academic rigor, much to the disappointment of several of those who eventually dropped out or did not complete the course. Unfortunately, their lack of participation, due to their perceived “inconvenience,” was obvious by their disgruntled and stilted comments which were frustrating to those who were seeking to maximize the potential opportunities--critical to the graduate-level learning process.

### *Student Evaluations as “Gold Standard”*

Distance education research indicates that using student satisfaction as the means for evaluating course and faculty excellence has troubled many institutions and departments. The insights gathered from the reexamination of this course suggest that a wide spectrum of student agendas, motivations, and expectations, which fall outside the scope of academic excellence, exists in the distance education environment. Judgments of value and quality are subjective and difficult to produce; they are not absolute concepts. Likewise, faculty and academic quality and excellence are subjective and can be viewed from different analytical perspective (Trindade, Carmo, & Bidarra, 2000). What the research does indicate is that offering courses aimed at promoting distance education or appealing to the broadest audience is expensive and risky. In addition, those institutions that use student satisfaction evaluations, rather than other measurable professional outcomes (Strother, 2002), also find themselves striving to meet the lowest students lowest expectations, losing their academic credibility in their efforts to generate bottom-line revenues.

It is difficult for students to give a teacher an evaluation when the student has enrolled in the wrong class for the wrong reason and without the appropriate credentials. Hopefully, student evaluations of faculty will be one of many criteria used in the overall effectiveness of classroom instruction. Otherwise, it would be easy as a faculty to always feel the need to focus the format and objective to teach to the lowest common denominator in an effort to have an overall higher evaluation. From both of the authors’ perspectives, we noted that it was interesting to find that misaligned expectations produced low student satisfaction, but which provide few insights useable for course improvement. Comments indicating that the course was too hard or took up too much of their time suggested less about the course and more about the students’ attitude and misaligned expectations.

### **Conclusion**

We found that research grounded in this small number case study as well as that based on theoretical foundations in the field of DL continues to provide new insights and broadening our understanding of new issues needing to be addressed (Strothers, 2002). This is especially true of those methods that use new methods of inquiry, such as discourse, functional analysis, and in-depth interviews, to obtain more meaningful learner results. Saba (2000) points out that analyzing distance education continues to reveal how complex the study of distance education is because of the many variables involved in any instructional setting plus other elements such as

social, economic, and global issues affecting the field.

In the functional analysis of ABCD 888, four families of multivariate issues emerged. Each of the four interrelated multi-variant families had a disruptive impact on the group dynamics, interaction, and student evaluations in an otherwise exceptionally well thought-out and designed course. In this reexamination, we found that in spite of the instructors' well-researched best efforts, issues such as student misalignment remained a constant concern for the faculty member when attempting to maintain a positive online social climate. In addition, we found that more research needs to be conducted and reported on how to fully address the issues inherent to graduate-level asynchronous online distance education.

Finally, we found good reasons to continue to move away from student satisfaction as the "gold standard" for evaluating academic and faculty excellence. Likewise, student professional performance measures and outcome assessments benefit not only program participants and external stakeholders (Kretovics & McCambridge, 1998), but can provide a means for systematic measurement for continuous faculty, course, and program improvement. These performance measures need to be developed and considered as an alternative option for academic and student achievement. Together administrators and faculty need to work together in a holistic approach in order to find the means for (a) establishing course constructs essential to facilitate the missions and objective inherent to the academic divide, (b) ensure administrative policies and marketing rhetoric that facilitates the development of appropriate student expectations alignment, (c) develop outcome measures to help evaluate student learning, faculty and academic excellences. What all of these measures and policies will be and the logistics for developing, reporting on, and following up on these new approaches has yet to be fully explored. We believe, however, that the insights that emerged from our reexamination have provided us with both a new model and perspectives with which to frame and pursue solutions to these multi-variant issues.

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## References

- Anderson, T. D., & Garrison, D. R. (1998). Learning in a networked world: New roles and responsibilities. In Chère Campbell Gibson (Ed). Distance learning in higher education: Institutional responses for quality outcomes. Madison, WI: Atwood Publishing. pp. 65-76.
- Boyatzis, R. E., Kolb, D. A. (1995). From learning styles to learning skills: The executive skills profile. *Journal of Managerial Psychology* 10, pp. 3-17.
- Burge, E. (1998). Gender in distance education. In Chère Campbell Gibson (Ed). Distance learning in higher education: Institutional responses for quality outcomes. Madison, WI: Atwood Publishing. pp. 25-45.
- Chan, B. (2002, October). A Study of the Relationship Between Tutor's Personality and Teaching Effectiveness: Does Culture Make A Difference? *International Review of Research in Open and Distance Learning*. [Online] Available at: <http://www.irrodl.org>
- Eaton, J. S. (ND) Core Academic Values, Quality, and Regional Accreditation: The Challenge of Distance Learning. [Online] Available at: <http://www.chea.org/Commentary/core-values.cfm>
- Frydenberg, J. (2002, October). Quality Standards in eLearning: A Matrix of Analysis. *International Review of Research in Open and Distance Learning*. [Online] Available at: <http://www.irrodl.org>



- Garrison, R. (2000, June). Theoretical Challenges for Distance Education in the 21st Century: A Shift from Structural to Transactional Issues *International Review of Research in Open and Distance Learning*. [Online] Available at: <http://www.irrodl.org>
- Glaser, B. G. (1978). *Theoretical sensitivity: Advances in the methodology of grounded theory*. Mill Valley, CA: Sociology Press.
- Gunn, C., McSporrán, M., Macleod, H., & French, S. (2003, February). Dominant or different? Gender issues in computer supported learning. *JALN*, 7 (1) , pp. 14-30.
- Kashy, D., Albertelli, G. II., Bauer, W., Kashy, E., & Thoennessen, M. (2003, February). Influence of non-moderated and moderated discussion sites on student success. *JALN*, 7 (1), pp. 31-37.
- Kretovics, M. & McCambridge, J. (2002, October) Measuring MBA Student Learning: Does Distance Make a Difference? *International Review of Research in Open and Distance Learning*. [Online] Available at: <http://www.irrodl.org>
- Lefor, P. J., Benke, M., & Ting, E. (2001, January). Empire State College: The Development Of Online Learning. *International Review of Research in Open and Distance Learning*. [Online] Available at: <http://www.irrodl.org>
- Lob Lobel, M., Neubauer, M., & Swedburg, R. (2002, October) The eClassroom used as a Teacher's Training Laboratory to Measure the Impact of Group Facilitation on Attending, Participation, Interaction, and Involvement. *International Review of Research in Open and Distance Learning*. [Online] Available at: <http://www.irrodl.org>
- Moore, M. G., & Kearsley, G. (1996). *Distance education: A systems view*. Belmont, CA: Wadsworth Publishing.
- Morse, K. (2003, February). Does one size fit all? Exploring asynchronous learning in a multicultural environment. *JALN*, 7 (1), pp. 37-56.
- National Education Association. (2000). *A survey of traditional and distance learning higher education members*. Washington, D.C.: Author.
- Olgren, C. H. (1998). Improving learning outcomes: The effects of learning strategies and motivation. In Chère Campbell Gibson (Ed). *Distance learning in higher education: Institutional responses for quality outcomes*. Madison, WI: Atwood Publishing. pp. 77-95.
- Oren, A., Mioduser, D., & Nachmias, R. (2002, April). The Development of Social Climate in Virtual Learning Discussion Groups. *IRRODL*. ISSN: 1492-3831
- Peters, O. (June - 2000). Digital Learning Environments: New Possibilities and Opportunities. *International Review of Research in Open and Distance Learning*. [Online] Available at: <http://www.irrodl.org>
- Polomba, M. R., & Banta, T. W. (1999). *Assessment essentials; planning; implementing and improving assessment in higher education*. San Francisco: Jossey-Bass.
- Saba, F. (2000). Research in distance education: A status report. *International Review of Research in Open and Distance Learning*. 1(1) [Online] Available at: <http://www.irrodl.org>

Sachs, D. & Hale, N. (2003, July). Pace University's focus on student satisfaction with student services in online education. *JALN*, 7 (2), pp. 36-42.

Sanchez, I. & Gunawardena, C. N. (1998). Understanding and supporting the culturally diverse distance learner. In Chere Campbell Gibson (Ed). *Distance learning in higher education: Institutional responses for quality outcomes*. Madison, WI: Atwood Publishing. pp. 25-45.

Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2000). *Teaching and learning at a distance: Foundations of distance education*. Upper Saddle River, NJ: Merrill.

Strother, J.S. (2002, April). An Assessment of the Effectiveness of e-learning in corporate training programs. *International Review of Research in Open and Distance Learning*. [Online] Available at: <http://www.irrodl.org>

Trindade, A. R., Carmo, H., & J. Bidarra. (2000, June). Current developments and best practices in open and distance learning. *International Review of Research in Open and Distance Learning*. [Online] Available at: [http://www.irrodl.org/content/v1.1/carmo\\_et\\_al.html](http://www.irrodl.org/content/v1.1/carmo_et_al.html).

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