READINESS FOR INTER-INSTITUTIONAL COLLABORATION:
A PATH FORWARD FOR ONLINE LEARNING

by

Robert Arthur Paulson, PhD
Shirley Freed, PhD
ABSTRACT

An environment conducive to inter-institutional collaboration greater utilizes intellectual and structural assets for the good of all in a growing learning community. As small colleges and universities struggle to maintain financial viability many have recognized the positive impact a collaborative environment has for all aspects of the institution. The leaders in this transition from autonomous to collaborative have been librarians and their use of technology to share databases and other assets. Organizations like the Concordia University System and The Great Plains Interactive Distance Education Alliance have been sharing structural and intellectual assets to reduce costs and risks in offering online learning. Shared assets can be as simple as professors or classes from another institution, webinars for discussion online pedagogy or as complicated as a shared Student Information System. The dropping of the traditional institutional boundary to form a closer and more collaborative relationship has a history of challenges. Conversely, as financial confronts increase the need to overcome those previously overwhelming challenges has inspired creativity and the accomplishment of what was previously thought to be impossible.

This study used the Transtheoretical Model of Behavioral Change to assess the current status of inter-institutional collaboration among 15 Adventist colleges and universities in North America. The data gave evidence that the majority of faculty were at the precontemplation stage while the majority of administrators were at the maintenance stage. The intermediate/outcome measures of decisional balance, self-efficacy, and behavioral frequency had a significant relationship with the stage of inter-institutional
collaboration. This kind of stage-associated behavior supports the Transtheoretical Model.

**Keywords**

Collaboration; Faith-based; Higher Education; Inter-institutional Collaboration; North American Division; Seventh-day Adventist; Stages of Change; Transtheoretical Model; Viability

**The Purpose of the Study**

The marketplace challenges of limited endowments and fluctuating enrollments have caused many smaller institutions to respond to the challenge by forming consortiums such as Claremont colleges, Five Colleges Inc, Concordia University System, and The Great Plains Interactive Distance Education Alliance. (Edington, 2006; Sanders, 2011; Driessner, 1998). By working together these small institutions accomplish what they would not have been able to do alone. They share intellectual and structural assets such as servers, student information systems, learning management systems, program curriculum, and where geographical location permits, Student Life programming. These kinds of alliances have been found to lower costs and the risks related to the implementation of new programs. (Dabl, 2005)

Seventh-day Adventist higher education in the North American the environmental challenges of an aging church membership, declining economic status among members, and membership growth in ethnic populations that traditionally do not participate in higher education (Osborn, 2007; Van Der Werf, 1999; Widmer, 1994).
The purpose of this study was to describe the current status of inter-institutional collaboration among Adventist institutions of higher education in North American. Without a clear understanding of the status of inter-institutional collaboration and the demographic issues involved, the outlook for moving the organization forward to a more inter-institutionally collaborative environment is bleak (Prochaska et al., 1988; Levesque, et al., 2001).

For the purpose of this study, the definition of inter-institutional collaboration was set at a conservative level in hopes of documenting any collaborative initiatives, small or large, within NAD Adventist higher education. In Kezar and Lester’s book *Organizing Higher for Collaboration* (2009) they make the following statement: "To make collaboration successful, organizations need to be redesigned to enhance group and cross-divisional work, which otherwise typically fails" (p. 36). The definition used in this study asks little in the way of a redesign for Adventist higher education but does require open lines of communication, respect, and a willingness to trust colleagues from other institutions. Central to the definition is an understanding that there are areas of commonality in mission and philosophical underpinnings that drive individuals and institutions. Specifically, successful Inter-Institutional Collaboration requires that Faculty/Administrators:

1. Work with faculty/administrators from other NAD institutions of higher education by providing funding and or planning opportunities for inter-institutional academic/administrative programs/institutive;

2. Are involved in inter-institutional purchasing or financial projects/ventures with the goal of minimizing costs and maximizing financial resources;
3. Share professional resources such as teaching or administrative documents and procedures;

4. Participate at least once a term in brainstorming sessions with colleagues of like job assignments on topics such as scholarly exchange, discussion of pedagogical or administrative issues.

**Theoretical Framework**

The Transtheoretical Model (TTM) of human behavioral change was used to evaluate the status of inter-institutional collaboration among Adventist institutions of higher education in North America. This model was developed by James O. Prochaska and has been used to assess a variety of behavioral changes, such as smoker to non-smoker, within health-related fields (Prochaska et al., 1988; Prochaska et al., 2005; Prochaska, Norcross, et al., 1994; Prochaska & Norcross, 2003) and recently to describe organizational change (Levesque et al., 1999). The model has two parts: the stages of change and the processes by which change occurs. The stages are precontemplation (not thinking about changing the behavior), contemplation (thinking about changing the behavior), preparation (looking for ways to change the behavior), action (working to change the behavior), and maintenance (the behavior has been changed and the person or organization is working to maintain the change) (Prochaska, Velicer, et al., 1994).

As part of the stage-of-change assessment, the Transtheoretical Model includes intermediate outcome measures that are stage-associated and enhance the power of the TTM to accurately assess the person or organization's stage of change. These measures are decisional balance (pro and con), self-efficacy, and behavioral frequency. As the person or organization moves from precontemplation to maintenance, the participant sees
the change of behavior as increasingly positive or pro, decreasingly negative or con. The participant's confidence in his or her ability to make the change increases along with the frequency of participation in the desired behavior.

Once the status or stage of change has been evaluated, the Transtheoretical Model suggests activities or processes that increase the likelihood of inspiring change. These processes or activities are either covert or overt activities engaged in by people or organizations to alter emotions, thinking, behaviors, or relationships (Prochaska, 1984; Levesque et al., 1999). There are 10 processes used to help move people along the stages of change. The first 5 are experiential in nature and are most productive during the stages of precontemplation, contemplation, and preparation. The experiential processes are consciousness raising, dramatic relief, environmental reevaluation, social liberation, and self-reevaluation. The second 5 are behavioral in nature and are best suited for participants in the stages of action and maintenance. The behavioral processes are stimulus control, helping relationships, counter conditioning, reinforcement management, and self-liberation (Prochaska, Norcross, et al., 1994; Prochaska & Norcross, 2003).

**Research Design**

This study was quantitative in design using survey research methodology developed by James Prochaska, Norcross, et al. (1994) and was adapted to assess inter-institutional collaboration among Adventist institutions of higher education in North America. The survey was administered via web-based technology (Zoomerang) to faculty and administrators at 15 of the 15 Adventist institutions of higher education in North America. The survey attempted to collect data from the entire population of faculty and administrators working at Adventist institutions of higher education in North America.
The rationale for inclusion of the entire population was two-fold. First, the return rate on web-based surveys is traditionally low (Andrews et al., 2003) and by sampling the entire population, data were gathered from a larger percentage of the total population. The actual return rate for this study was 32% or 797 out of the total population of 2,578. Andrews et al. (2003) found that response rates of as low as 20% would not be considered uncommon for this type of survey. Secondarily, web-based surveys make it possible to survey the entire population at no additional expense.

**Results**

The study population had representation from 15 of the 15 Adventist institutions of higher education. Of the participants who responded to demographic questions, there were 301 females and 330 males, 494 faculty, and 137 administrators. Thirty-eight percent of the administrators and 22% of the faculty working at Adventist institutions of higher education in North America participated in the study.

The participants had a mean age of 52.5 years, with the faculty at 52.1 and the administrators at 54.0 years of age. The mean for years of experience in Adventist higher education was 15.5 years, with administrators at 17.7 years and faculty at 14.9. Of the 631 participants, 389 (60.5%) have had experience outside of Adventist higher education. Of the participants with experience outside of Adventist higher education, 273 (42.5%) participants had experience in non-Adventist higher education, 122 (19.0%) in secondary education, and 78 (12.1%) at the kindergarten to eighth-grade level. The survey listed 20 possible teaching assignments for faculty, with nursing as the most often selected at 14% of the participating faculty. Of the possible 15 presidents, 4 participated with vice-presidents for student services as the most participatory group of vice-presidents.
Research Question 1

What is the status of inter-institutional collaboration among Adventist colleges and universities in North America?

As a population, the majority of the participants are either in precontemplation and contemplation (57%) or action and maintenance (42%) (Figure 1). For further analysis, the 1% of participants in the preparation stage was combined with the participants in contemplation. Note that the majority of participants are either in the preparation or maintenance stage. Very few are in the process of making a decision to participate in inter-institutional collaboration; likewise, there are very few in the early stages of taking action.

Research Question 2

What is the relationship between the stages of inter-institutional collaboration and the following selected demographic characteristics: gender, work classification, age, and years of experience in Adventist higher education?

A Chi-Square analysis indicated that stage of collaboration is not related to gender
Figure 1. Participants’ stage frequency distribution in the percentage of the total.

\( \chi^2 = 1.75, df=3, p=0.627 \), whereas work classification as faculty or administration \( \chi^2 = 33.52, df=3, p=0.000 \), age of the participant \( \chi^2 = 23.33, df=9, p=0.005 \), and years of experience in Adventist higher education \( \chi^2 = 18.21, df=6, p=0.006 \) do have a significant relationship with stage of inter-institutional collaboration. The majority of faculty (52%) are at the precontemplative stage whereas the majority of administrators are at the maintenance stage (49%). The data also indicate that even though the majority of a work classification group may be at one extreme, there is still a considerable number of that group at the other end of the stages of change (Figure 2).

Further investigation into the significance of the relationship of age and stage demonstrated that when faculty \( \chi^2 = 16.57, df=9, p=0.056 \), and administrators \( \chi^2 = 15.04, df=9, p=0.090 \) were analyzed separately, there was no significant relationship between age and stage of inter-institutional collaboration.

Further analysis of the relationship of the years of experience and stage of inter-institutional collaboration revealed that when work assignment groups were analyzed
separately, only faculty demonstrated a significant relationship between years of experience and stage of collaboration \( (\chi^2 = 8.77, df = 3, p = 0.033) \). Those with fewer years of experience are less likely to be at the maintenance stage of inter-institutional collaboration.

Figure 2. Participants’ stage frequency distribution percentages within work classification.

Research Question 3

*What is the relationship between stage of inter-institutional collaboration and scores on decisional balance, self-efficacy, and behavioral frequency?*

A significant \( (\alpha \leq 0.01) \) relationship was found between stage of inter-institutional collaboration and participants’ scores on decisional balance \( (\text{pro}, p = 0.000; \text{con}, p = 0.010) \); self-efficacy \( (p = 0.000) \), and behavioral frequency \( (p = 0.000) \). A graphic representation of the stage-associated changes in decisional balance can be seen in Figure 3.
Post hoc analysis identified areas of significant change in pro scores to be between precontemplation and contemplation/preparation ($p=.000$) and again from precontemplation to maintenance ($p=.000$). The con scores demonstrated a significant stage-associated difference between the stages of precontemplation and action ($p=.021$) and between contemplation/preparation and action ($p=.046$).

Participants' self-efficacy scores at precontemplation had a mean value of 2.15 and 2.56 at maintenance. The post-hoc analysis identified participants' self-efficacy scores at precontemplation to be significantly different from scores at maintenance ($p=.000$). A graphic representation of this stage-associated change in self-efficacy can be seen in Figure 4. This kind of increase in participants’ self-efficacy, related to behavioral change, is in line with the Transtheoretical Model and gives evidence of its use in the organizational setting.

Participant stage-associated scores for behavioral frequency were found to be significantly different in all stage combinations. A graphic presentation of the progression of behavioral frequency from precontemplation to maintenance can be seen in Figure 5. The survey questions related to behavioral frequency are target-behavior-associated and support the definition of inter-institutional collaboration used in this study. The fact that the data in this study demonstrated significant stage-associated changes in behavioral frequency supports the theory of intermediate outcome measures within the Transtheoretical Model.
Figure 3. Stage-associated changes in decisional balance.

Figure 4. Stage-associated changes in self-efficacy.
Research Question 4

In the context of gender, age, years of experience in Adventist higher education, and classification as faculty or administrator, what is the relationship between the stage of inter-institutional collaboration and scores of decisional balance, self-efficacy, and behavioral frequency?

There is a significant relationship between stage of inter-institutional collaboration and the linear combination of decisional balance pro and con, self-efficacy, and behavioral frequency. However, there is no significant interaction effect between stage of inter-institutional collaboration and the demographic characteristics of gender (Pillai’s Trace=0.505, $F_{(12,1644)}=27.701$, $p=0.000$), age (Pillai’s Trace=0.129, $F_{(9,1596)}=7.959$, $p=0.000$), years of experience in Adventist higher education (Pillai’s Trace=0.116, $F_{(9,1503)}=6.689$, $p=0.000$), and work classification as faculty or administrator (Pillai’s Trace=0.066, $F_{(9,1707)}=4.237$, $p=0.000$). The data suggest that the relationship between stage of inter-institutional collaboration and the linear combination of decisional
balance pro and con, self-efficacy, and behavioral frequency does not depend on the demographic characteristics of gender (Pillai’s Trace=0.018, $F_{(12,1644)}=0.805$, $p=0.646$), age (Pillai’s Trace=0.032, $F_{(9,1569)}=0.646$, $p=0.919$), years of experience in Adventist higher education (Pillai’s Trace=0.026, $F_{(18,1503)}=0.737$, $p=0.775$), and classification as faculty or administrator (Pillai’s Trace=0.015, $F_{(9,1707)}=0.976$, $p=0.458$).

**Scholarly Significance**

In this section, we offer some possible explanations for the results as well as provide suggestions for stage matching. A review of current faculty initiatives and organizations demonstrates that within Adventist higher education, small informal, and, to a limited extent, formal networks of faculty have been created. These small networks have crossed institutional boundaries and connect like-minded individuals, opened avenues of trust, and broadened the members' understanding of Adventist higher education and the need for inter-institutional collaboration. Casual networking has been made possible by subject-area national meetings, the job-related transition of faculty members to other Adventist institution of higher education, or by the close-knit connections that exist within the Adventist church in North America. One such casual network that became formal was the creation of the Adventist Virtual Learning Lab (AVLL) or, as it was later known, Adventist Virtual Learning Network (AVLN). In 1999, a group of faculty recognized the need for collaboration in distributed or online learning and organized a conference in Orlando, Florida. The conference involved discussions related to collaboration in online learning but was driven on the collective understanding that “Together we stand, divided we fall” (Eggers, 2001). On a more formal basis, faculty are involved in academic organizations, which have been established by department or
academic disciplines such as English, Physical Education, and Religion. These organizations meet in conjunction with national conventions but attendance is limited due to budgetary constraints.

In contrast to the faculty, administrators describe themselves as predominately in the maintenance stage (48.6%) of inter-institutional collaboration with a significant portion (26.1%) in precontemplation. The degree of availability and the extent of networking opportunities for collaboration inherent in the job of an administrator may be a contributory factor. Administrators at Adventist institutions of higher education in North America are members of a variety of committees or organizations functioning at the North American Division level. Those committees or organizations include the Association of Adventist Colleges and Universities (AACU), the Adventist Distance Education Consortium (ADEC), Adventist Student Personnel Association (ASSPA), and the North American Division Association of College and University Business Officers (NAD-ACUBO). These organizations meet on a regular basis and stay in touch with their members via newsletters and email distribution lists. This kind of networking enhances the opportunity for collaboration and opens the doors of communication between colleagues across institutional boundaries. However, the question must be asked, why are a significant number of administrators in the precontemplative stage (26.3%)?

With the availability of networking opportunities and job descriptions that demand a clear understanding of institutional challenges, why do some administrators seem to fail to consider inter-institutional collaboration as holding potential for enhancing institutional viability? One might suggest that as institutions are faced with greater financial challenges, administrators become consumed in the process of maintaining their
own institution and lose sight of the prospect of a systems approach to meeting institutional challenges. As a member of the Adventist Digital Education Consortium (ADEC) I have observed this kind of institutional focus in action. One of the recent projects undertaken by ADEC is a cross-registration program for online classes. This program would make online classes offered at Adventist institutions of higher education in North America available, within block tuition plans, to students attending other Adventist institutions of higher education in North America. After many attempts, the cross-registration program failed to reach implementation due to individual institutional financial concerns. The inability to enact this type of inter-institutionally collaborative program demonstrates behavior congruent with a population at the precontemplative stage of inter-institutional collaboration.

Review of the data from this study demonstrates that during the combined stages of contemplation/preparation the perception of the change to inter-institutional collaboration became increasingly positive and outweighed the negatives into the stages of action and maintenance. As long as people involved in the change process believe that the change process is inherently negative, they will resist making the desired change in behavior. Previous research has observed average increases in decisional balance pro scores of 1.0 standard deviations and decreased in con scores of 0.5 standard deviations in the transition between precontemplation and action (Prochaska, Norcross, et al., 1994). The previous research involved a variety of populations and behaviors and does not suggest that the degree of change in stage-associated decisional balance scores observed in this study is out of the norm. What is of particular interest is the drop in pro scores as the participant moves from contemplation/preparation to action (Figure 3). The decline in
participants’ positive attitude relative to a change in behavior may be caused as the person initiates implementation of inter-institutional collaborative activities and encounters unanticipated challenges. In other words, as people in an organization move from the decision-making stage to the implementation or action, their initial feelings of optimism, relative to the change in behavior, are diminished by the reality making the change. For example, the cross-registration program for students in Adventist higher education would have made available online classes taught at AACU member schools available, free of charge, to students at students attending other AACU member institutions. However, cross-registration has failed implementation caused by a variety of economic and institutional challenges. It is this kind of organizational change challenge that could easily decrease attitudes relative to the positive nature of inter-institutional collaboration.

This study found that the intermediate/outcome measures of decisional balance, self-efficacy, and behavioral frequency had a significant relationship with the stage of inter-institutional collaboration within the total participant population and within demographic groups. This kind of stage-associated behavior supports the Transtheoretical Model's hypothesis that as a person or organization moves from precontemplation to maintenance, there will be stage-associated changes in the intermediate/outcome measures, thus enhancing the model's ability to describe the behavioral change.

In light of the results of this study, we recommend a stage-matched approach focused on enhancing the environment for inter-institutional collaboration among Adventist institutions of higher education in North America. However, without the support of individual institutions, conferences, divisions, and the General Conference of
Seventh-day Adventists, attempts to enhance inter-institutional collaboration in Adventist higher education will likely fail.

**Experiential Stage Matching**

In general terms, participants in precontemplation and contemplation need the interventions that are experiential in nature and include the processes of consciousness raising, dramatic relief, environmental reevaluation, social liberation, and self-reevaluation. The following recommended interventions meet the change needs of participants in the stages of precontemplation and contemplation:

1. Communication with participants in regard to the value of and goals for inter-institutional collaboration in Adventist higher education

2. Opportunities to inspire interest in inter-institutional collaboration and alleviate participants’ anxiety associated with the change

3. Communication that increases understanding of the interconnected nature of Adventist higher education and how individual institutions can benefit from increased inter-institutional collaboration

4. A consorted effort on the part of leadership to express commitment to inter-institutional collaboration. Expressions of commitment need to be clear and financially supported at all levels of administration from the individual institutions to the General Conference of Seventh-day Adventists.
Behavioral Stage Matching

In general terms, participants in action and maintenance need interventions that are more behavioral in nature and include the processes of stimulus control, helping relationships, counter conditioning, reinforcement management, and self-liberation. The following recommended interventions meet the change needs of participants in the stages of action and maintenance:

1. The creation of a structure that produces incentives to maintain or advance stages of inter-institutional collaboration
2. Provide financial support for individuals and institutions desiring to explore greater involvement in inter-institutional collaboration
3. Develop and publicize a strategic plan for inter-institutional collaboration among Adventist institutions of higher education in North America.

Other Strategic Initiatives

The following recommended strategic initiatives offer environments that are both experiential and behavioral in nature. Special attention should be given to guiding participants into aspects of the activities that meet stage-related needs.

1. Support the creation of a higher education convention, which would include all faculty and administrators working at Adventist institutions of higher education in North America. The convention would offer participants an opportunity to network with colleagues from other institutions, share experiences in the field of inter-institutional collaboration, and explore the possibilities of involvement in inter-institutional collaboration initiatives. At the same time, participants at the stages of action and
maintenance could be given recognition for their participation in inter-institutional collaboration and support for further exploration within the concept of collaboration.

2. Financially support the creation and utilization of a variety of asynchronous communities focused on areas of interest to faculty and administrators and matched to the participants’ stage of inter-institutional collaboration. Communication in these communities would be via discussion forums, distribution lists, podcasts, and newsletters. Geographic and time issues are a challenge to the process of networking colleagues in Adventist higher education, thus the use of asynchronous communication would reduce those challenges and enhance networking opportunities.

3. Financially support an increase in the frequency and quality of regular synchronous communication between colleagues of similar academic, social, and work interest via face-to-face meetings, video conferencing, and webinars. This type of interaction would be of great value to participants in the early stages of inter-institutional collaboration such as young faculty needing to establish collaborative networks.

4. Create and encourage the use of a learning object repository where intellectual assets could be shared and improved upon. Assets shared in this repository would be part of an environment for collaboration where participants would benefit from the work of others. In order to ensure success, steps need to be taken to publicize the creation of the repository and reward its use.

5. Support the creation of a Council for Collaboration in Adventist Higher Education, which would include leadership representation by faculty and administrators at the institutional, Union, North American Division, and General Conference levels.
This council would be given authority to reward and provide incentives to promote inter-institutionally collaborative efforts by institutions and individuals.

6. Give faculty and administrators working at institutions of higher education in North America opportunities to take classes from other Adventist institutions of higher education in North America at no charge.

**Conclusion**

Continued research into the status of inter-institutional collaboration and the effectiveness of the processes of change used by Seventh-day Adventist higher education to enhance inter-institutional collaboration would add to the body of knowledge relative to organizational change and the effectiveness of the Transtheoretical Model in the organizational environment. As Adventist higher education in North America continues to work to meet the needs of the learner and overcome the challenges of the changing financial and sociological environment of higher education, it must continually evaluate the effectiveness of its efforts and work to gain a better understanding of its inter-institutional collaborative status.

Kezar and Lester (2009) make the following statement: “To make collaboration successful, organizations need to be redesigned to enhance group and cross-divisional work, which otherwise typically fails” (p. 36). Adventist higher education is in the beginning stages of transforming into a more collaborative environment and thus needs to re-evaluate its structure, with the goal of increased inter-institutional collaboration.

If Adventist higher education is going to meet the challenge of creating a holistic educational experience within the current economic and sociological environment, the 15
Adventist institutions of higher education in North America need to work together in a spirit of collaboration for the good of all, especially the students.
REFERENCE LIST


