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### Assessing the Administrative Support Needs (Library and Technical) of Allied Health Students Enrolled in a Distance Education Program

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#### Abstract

As more emphasis is placed on offering education to the distance student and monies are spent to provide these services, institutions must ensure they reap the rewards of the investment. One avenue to ensure success in distance education is the implementation of strong student support services. This is a task that will take the teamwork of educators, administrators, instructional technologists/designers, and support personnel. For institutions transitioning to a distance format, measures must be taken to ensure that the learner, no matter what the method of delivery, has access to equivalent student support services. One approach to measuring this aspect is the determination of student satisfaction with the support services offered to distance students. A study was conducted at a public health sciences research university in the Southeast to determine whether the administrative student support services (library and technical) offered at the institution met the educational needs of allied health students enrolled in a distance education program. Results from student questionnaires were analyzed to determine the satisfaction level of distance students with administrative (library and technical) student support services. Overall responses showed that allied health students enrolled in a distance education program were satisfied with the existing student support services (library and technical) offered by the institution. Narrative responses from the participants reinforced a common theme that although the students were satisfied with the services, more emphasis needed to be placed on library and technical support services that are available to distance education students during the program orientation.

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#### Introduction

Distance education has come to the forefront of higher education as institutions strive to increase enrollments and answer the demands of their consumers. This new delivery of instruction is "institution-based, formal education where the learning group is separated, and where interactive telecommunications systems are used to connect learners, resources, and instructors."<sup>1</sup>

The literature indicates that as institutions change the way they offer education, they must also change the way they offer student support services. Distance education and traditional students each have unique support needs. These needs should be fulfilled with services that are of equivalent value to both groups. This school of thought is supported in the literature and the research, as well as by accrediting agencies and professional associations.<sup>2-7</sup>

The research discussed in this article focused on a public health sciences research university in the Southeast which has recently embarked in distance education initiatives. The goal of the research was to determine if the administrative (library and technical) student support services were meeting the needs of the allied health students enrolled in a distance education program. Identifying if the services met the student's needs was essential for student satisfaction and future accreditation by the Southern Association of Colleges and Schools (SACS).

#### Review of the Literature

The theory underlying student services can be traced to many different disciplines. Emphasis on the development of the student can be linked to research in psychology, sociology, and biology while the administrative components

of student services can be linked to theories of management, human resources, and leadership.<sup>8</sup>

The literature strongly suggests that student support services are a vital component in the success of distance education programs. Visser and Visser found that "student support is one of the critical, yet often overlooked, components of an effective distance education system."<sup>9</sup> Moore reaffirmed the need for student support by stating, "Learner support is one of the most critical elements in determining the success of a distance education program."<sup>10</sup>

In a study of student support services in higher education, Jackson noted that a shift needs to take place in order to meet the needs of distance education students.<sup>11</sup> This shift should focus on a change from the traditional campus-centered model of support to one of a learner-centered model. Kramer supported this theory by illustrating that the changing environment in higher education has made student-centered support services essential.<sup>12</sup>

Student support should be supportive of the distance learner as well as the traditional student.<sup>8</sup> Services offered to the distance education student must be at a level equivalent to those received by the traditional on-campus student. Simonson affirmed the need for equivalency in his explanation that distance education should provide "equivalent learning experiences for all students, distant and local."<sup>3</sup>

The equivalency theory provides a framework for the learning experiences of distant and local students, emphasizing that experiences, including student support, need not be the same. The goal of student support services should be to provide opportunities that allow for the experiences of each student, distant and local, to be equivalent. Even though the experiences may not be duplicative in nature, the experience should have equivalent value.<sup>13</sup> For example, the distance student conducts his or her library research online while the traditional on-campus student conducts research in the library and has direct access to print resources.

The literature reinforces the insurance of equitable support services for distance education students. Lebowitz noted if an institution is "seriously interested in providing comparable/equitable education" to its distance education students, it must "make a visible commitment to providing the necessary support services."<sup>14</sup> This visibility includes the institution's administration providing adequate funding as well as support for any necessary changes to the existing support services.

Numerous empirical studies addressing the administrative (library and technical) support needs of distance education

students can be found throughout educational research literature. These studies include numerous methodologies, including student surveys and interviews, as well as faculty surveys. They also cover a variety of topics, including the study of student perceptions and attitudes toward distance education and open learning, distance education support services, library needs, and distance education student satisfaction.

In a study of college students enrolled in a state-sponsored online degree program, Blackman questioned the perceptions and attitudes of online students regarding library services.<sup>5</sup> The purpose of the study was to determine if the online students were receiving equivalent library services to those of on-campus students. The study participants included 114 students enrolled in an online degree program. An online survey was administered that addressed the institution's virtual library. The results of the study demonstrated that students did not perceive that the online library services were different from the on-campus library services. Students were also overall satisfied with the library services available to them. Although the results of this study were positive, the author recommended that institutions remain proactive in offering support services to distance students since they expect the institution to meet their needs, regardless of their location.

A study by Paneitz addressed community college students' perceptions of support services offered in telecourses. One hundred eighty three (183) participants responded to a questionnaire regarding their level of utilization and satisfaction with student support services. The study demonstrated that distance education students used a variety of delivery systems to access support services, including no-technology systems, on-campus systems and high-tech systems. It was determined that the level of technology did not affect the level of student satisfaction with the support services. The author concluded that technology will play a bigger role in the future delivery of support services to distance education students. Paneitz recommended that institutions should offer efficient administrative student support services to distance education students rather than spending resources on the highest-technology delivery systems available.<sup>4</sup>

The empirical studies summarized above emphasize that administrative student support (library and technical) is an important factor to the success of the distance education student and that continual assessment is needed to identify the evolving needs of distance education students.

#### **Definition**

Variations exist in how one defines student support services. Much of the literature focuses on the process of distance education rather than the support needs of students participating in distance education.<sup>15</sup> The

definition and implementation of support services also varies from institution to institution, making it impossible to provide an absolute definition.

The focus of distance education has expanded in recent years, and institutions are placing an increased emphasis on offering traditional student support services to the distance learner.<sup>16</sup> Student support includes the strategies, skills, and activities utilized to assist in the student's success. It includes those services that aide the student in successfully completing a course.<sup>15</sup>

Visser and Visser took it a step further in defining support as the assistance and guidance students receive from faculty, in addition to the coursework.<sup>9</sup> Similarly, Tait defined student support services as those activities which "complement the course materials or learning resources that are uniform for all learners."<sup>17</sup> Tait stressed that the support services were essential for student success and were interdependent of each other.

The two main branches of student support include academic and administrative support. Within these two branches are a number of support services. The services an institution chooses to offer vary based on the customer characteristics, the available delivery mechanisms, and the culture of the institution.<sup>18</sup>

The branch of academic support refers mainly to those services that relate directly to the student's coursework. Visser and Visser noted academic support as the tools and resources needed by students to successfully complete their coursework.<sup>9</sup> An example of such services may include counseling, advising, and academic testing.<sup>19,20</sup>

The branch of administrative support includes those activities that are not directly connected to the student's coursework. Townsend et al. noted in a study of healthcare professionals participating in distance education that students were more confident when access to administrative support services was available.<sup>21</sup> The U.S. Department of Education, in *Beyond the Administrative Core: Creating Web-Based Student Service for Online Learners*, described administrative support services as the most common services to be integrated into a time and location-independent format of distance education.<sup>22,23</sup>

Administrative services may include library support, career advising, tutoring and mentoring support, admissions, financial aid assistance, registration, book store purchases, obtaining identification/library cards, and technical support.<sup>19,24,25</sup> Regents College in Albany, New York, adds additional services outside of the common list with their electronic peer network and online alumni service.<sup>26</sup>

The literature confirms that student support is a vital component of successful online learning, and it addresses the importance of student satisfaction with support services. Students' needs should be supported no matter when or where they request assistance.<sup>25</sup> Distance educators should offer student support services to assist in a positive academic achievement for the learner.<sup>24</sup> Failure to support the learner may result in negative outcomes for the student and the institution.

For distance education programs to be successful, the institution must provide the full range of academic and administrative support.<sup>19</sup> Services provided for distance students must be offered at the same level as those received by their counterparts on campus. Simonson's Equivalency Theory advocates the assurance of equivalent learning experiences for both traditional on-campus and distance education students.<sup>3,13</sup> This theory is reinforced with the requirement of equivalent services for distance education students by accrediting agencies such as SACS and professional organizations such as the Association and College and Research Libraries (ACRL).

The empirical research in administrative student support reaffirms the need for strong support services for the distance education student. Studies by Paneitz, Dew, Dearnley, and Kazmer demonstrate that student support is a vital component in the success of the distance education student and program.<sup>4,27,28,29</sup> The research also addresses the constant evolution of the distance education student and reinforces the necessity for continual assessment of student needs.

### Methodology and Research Design

The problem this research study addressed was whether the existing student support services (library and technical) met the needs of allied health students enrolled in a distance education program at a public health sciences research university.

The population for the study consisted of students enrolled at the university. At the time of the study, approximately 2,078 students were enrolled throughout five schools. A purposive sample of allied health students enrolled in a distance education program was surveyed.<sup>30</sup> The students were enrolled in distance education courses in Health Information Management (HIM), Occupational Therapy, Medical Technology, and Radiological Sciences. The sample included 60 students.

The purpose of the *School of Allied Health Sciences - Survey of Distance Education Students* was to collect data regarding the use of and perception of student support services by allied health students, specifically in the areas of library and technical support.

The questionnaire design included close-ended questions with Likert-scale responses. This methodology is frequently used in questionnaires to measure the attitudinal scale of students.<sup>31</sup> The questions were designed to collect demographic information as well as students' opinions. Two open-ended questions were included to allow students the opportunity to make additional comments.

The questionnaire was tested for reliability and validity by a panel of experts within the institution prior to administration. The validity of a questionnaire is the extent to which the instrument measures what it is supposed to measure.<sup>30</sup> Content validity was confirmed for the questionnaire by a panel of experts. The reliability of a questionnaire is the extent to which the completion of the questionnaire will yield consistent results each time it is completed. Interrater reliability was confirmed for the questionnaire when two or more of the experts gave identical judgments of the measurement tool.<sup>30</sup>

Reliability was further tested upon approval from the Institutional Review Board to utilize and distribute the questionnaire. A pilot test of the questionnaire was conducted with a small group of students enrolled in the HIM distance education program. The purpose of the pilot test was to confirm face validity and verify the clarity of the survey. Based upon feedback from the pilot study group, no revisions or additions to the survey were required.

The questionnaire was administered in an online format to all allied health students enrolled in a distance education program and/or course in Health Information Management, Medical Technology, Radiological Sciences, and Occupational Therapy. Gall et al. recommend using this questionnaire format to assist in lowering the cost of surveying participants over a wide geographic area and to assist in lessening the time required to collect the survey data.<sup>31</sup>

## Results

A response rate of 75% was achieved for the study, with 45 out of 60 participants completing the survey. A predominant finding in the analysis of demographic data was the percentage of Caucasian females (75.6% Caucasian; 91.1% female) in the sample population. This is representative of most allied health programs which tend to have predominantly female student enrollment. The results are also similar to those noted in studies by Paneitz and Blackman.<sup>4,5</sup> Each study had a large percentage of Caucasian females participating in online degree programs.

The majority age for survey participants was the 22-25 year old category (37.8%), with the remaining participants disbursed evenly among the remaining age categories. This age group is typical for SAHS students since most enter the institution as junior or senior transfer students.

The data regarding employment was very representative of students enrolled in a health sciences research university since the majority of students are enrolled full-time and have little time to work. More than one-half (53.8%) of the respondents were not employed outside the home, with the remaining participants being employed either full-time (20%) or part-time (22.2%).

The student's ability to use a computer is an important factor in the enrollment in a distance education program. The majority of the distance education students responding to the survey noted that they were either "skilled" (48.9%) or "intermediate" (46.7%) in their level of computer expertise. Less than five percent reported they were either an "expert" or a "novice."

The majority of participants enrolled in the SAHS were pursuing a Bachelor's degree (55.6%), which is representative of the majority of programs currently offered at the institution. Responses regarding number of courses taken via distance education were in contrast to the responses obtained from an earlier study by Paneitz.<sup>4</sup> This study found that most of the participants had taken "10 or more" distance education courses (37.8%) while Paneitz found that most of the study's participants had taken one to five courses (84.5%). This contrast can most likely be explained by the increase over time in the availability of better computer technologies and more distance education course offerings.

For the demographic question concerning the reason for pursuing a degree via distance education, participants were allowed multiple responses, with the majority responding they chose distance education to minimize travel to/from campus (60%). Approximately thirty-six percent of the participants also chose distance education due to family obligations and twenty percent chose distance education due to conflicts with on-campus courses.

The survey of library support services addressed both the orientation to the library services and the overall level of satisfaction with services available to distance education students. Participants received orientation from a variety of resources with most utilizing the librarian and online tutorials available via WebCT. The participants were satisfied with the library orientation and found it to be somewhat adequate and timely.

Many of the research participants stated they did not access print library materials as much as they did the electronic library materials. Those that did use both print and electronic materials noted that the materials were very adequate and very timely. The overall level of satisfaction with print materials was lower than that of electronic

materials. The more favorable responses of access to electronic materials is representative of students enrolled in a distance education program, since most students would be accessing library materials from their home or work computers instead of visiting the campus library.

Overall satisfaction with the library support services offered to distance education students was positive, with the majority responding they were either very satisfied or satisfied. These findings are similar to the results obtained by Blackman in a study of perceptions of library services available to online students.<sup>5</sup> Blackman concluded from the study results that students enrolled in online programs were satisfied with library resources and services available to them as distance learners.

The survey of technical support services included general technical orientation, WebCT orientation, and email/phone support. Participants were asked to list all of the resources they had used as part of the technology support services. A significant portion of the participants had used faculty and fellow classmates as a technical support resource. The findings supported the researcher's concern that distance education students do not have a centralized, one-stop resource for support services.

Participants also utilized a variety of resources for orientation to technology services. The majority had received orientation during the fall orientation and from a faculty member. Participants rated the technology orientation as being adequate and timely, and they were either very satisfied or satisfied with the overall service. The same held true for the WebCT orientation, which participants rated as adequate and timely, with the overall level of satisfaction being similarly positive. The level of satisfaction with the overall technology support services was positive. Sixty percent found themselves to be either very satisfied or satisfied with the technical support services.

An analysis of variance (ANOVA) was calculated to determine if a significant difference existed between dependent and independent research variables. A significant difference was determined to exist between one group of variables; age and overall satisfaction with library support services. No significant difference was found to exist between the variables of:

- ethnicity and satisfaction level with library and technical services,
- gender and satisfaction level with library and technical services,
- program enrolled and satisfaction level with library and technical services,
- participation in orientation and satisfaction level with library and technical services,

- level of computer expertise and satisfaction level with library and technical services.

A post hoc test was conducted to determine if the level of difference between the multiple variables was truly significant. The Tukey method, also known as the honestly significant difference (HSD) method, was calculated as a post hoc test. This method, similar to other multiple comparison tests such as Duncan's multiple range test or the Scheffe test, is a test of the significance of the differences between more than two variable means and is considered one of the more conservative post hoc tests.<sup>31</sup> The Tukey method, with the alpha level set at .05, was used to make the comparisons of the groups' mean age on the groups' satisfaction level scale.

Results of the Tukey method demonstrated that a significant difference existed between the level of satisfaction in library support services of those in the subgroups of 26-35 years old and 36 and older versus the level of satisfaction in library support services for younger participants. This illustrated that the younger students, ages 18-25, have a higher satisfaction rating for library support services (mean = 2.2) than the older students, ages 26 and over (mean = 1.3).

Narrative survey responses provided several common themes in both positive and negative aspects. Comments regarding program successes included themes such as good training on the use of library resources and technologies such as WebCT and email. One student commented, "Good instruction on how to use WebCT and the email system. Also the instruction on how to use the electronic databases was great." Other participants noted that the availability of library resources was good, including e-publications and interlibrary loan.

Several comments focused on the excellent support provided by the distance education librarian and the faculty in regards to support for library and technical issues. One student noted, "The distance education librarian provides excellent support when you have a problem and provides suggestions on where to find the material you need," while another commented, "The provision of library services was good. I couldn't get into the library site at first and they helped me a great deal. The technical support was also great."

Comments regarding program failures included themes such as problems with library resources and technologies, as well as problems with training and support. Students voiced a concern with the unavailability of some print journals in an electronic format. They noted that time constraints kept them from using interlibrary loan services to obtain hard-copy journals and articles. One student noted, "More journals should be added to e-publications,"

while another stated, "I know that interlibrary loan is an option when e-journals are not available but with time restraints, it is often more of a bother than it is worth."

Another common theme was that participants were unaware of resources in the library and technologies such as the institutional email system. Students emphasized a need for a more detailed orientation to library and technical support services. Several students commented on not knowing how to access e-publications and being unaware of email and library resources. As a result, one student recommended that "there should be a formal orientation for distance students."

### Conclusions

The study results build upon the theoretical foundation and published research in the area of student support for the distance education environment. As recommended by Panietz and Blackman, the study addressed the need for institutions offering distance education programs to reevaluate existing student support services and to remain proactive in offering such services.<sup>4,5</sup> It further addressed compliance with the SACS (2003) accreditation requirement that distance education programs assess the level of student satisfaction.

In regards to student support, the study results addressed both library and technical support services. Allied health students enrolled in a distance education program favorably ranked the overall library support services provided by the institution. Most distance education students received library support services orientation from either a librarian or an online tutorial in WebCT and were satisfied with the orientation. However, it is noteworthy that narrative comments demonstrated a concern of students for a more detailed orientation. These findings reinforce the IHEP study *Quality on the Line: Benchmarks for Success in Internet-based Education* and the work of Fulcher & Lock.<sup>33,34</sup> The authors and studies demonstrate that training in the use of library services is an essential element of student support for distance education students. Distance education students did not utilize their access to print library materials as much as they did electronic library materials. They preferred to use electronic materials and recommended the incorporation of more electronic materials into the library resources. The literature supports this increased use of technology and library services.

Kramer recommended that institutions need to understand how technology can add value to the delivery of student support services.<sup>12</sup> Aoki and Pogroszewski confirmed this need by stating that support services offered through telecommunication mediums can assist in ensuring equivalent services for all students.<sup>35</sup> The use of technology and library service was addressed by Dew in which he recommended that more emphasis be placed on

library internet resources.<sup>27</sup> Electronic library resources are also discussed in the SACS publication *Best Practices for Electronically Offered Degree and Certificate Programs*.<sup>36</sup> The benchmarks recommend that library resources be available to the distance student, including remote access to databases, online journals, and full-text resources.

The second area addressed by the study included the technology support services. Similar to the library services, these services were also ranked favorably overall. The majority of participants received orientation to technology services and WebCT during either the SAHS fall orientation or from a faculty member, and they reported being satisfied with the services they received. However, they did comment in narrative feedback the need for a more detailed orientation on technology services.

Kazmer addressed the need for technology training in a study of students enrolled in a graduate distance education program.<sup>29</sup> The findings of his study demonstrated that distance education students need to be trained how to use the distance education technologies. Similarly, Gandhi found that students need to know how to use technology required in distance education programs.<sup>37</sup> The technology training of distance education students is also supported by the IHEP study, *Quality Assurance for Whom? Providers and Consumers in Today's Distributed Learning Environment*, in which it is recommended students be provided with hands-on training and information to aid them with the process of accessing course materials.<sup>38</sup>

Narrative comments highlighted both successes and failures of the administrative support services offered to distance education students. The majority of students were complimentary of the services and resources for the library and technology as well as the level of support they received. It was evident from the negative narrative comments that some students are unaware of the library and technology support services that are available. Students addressed this issue with the recommendation of more detailed orientations to the services offered.

As evidenced in this study and the literature, training is an essential component of student support in both library and technology support services. It is also apparent that technology plays a bigger role in library support services today than it has in the past, and it will continue to be important in the future delivery of support services to distance education students.<sup>4</sup>

As Manzo noted, the quality of student support services can be a factor in distinguishing the successful programs from the failures.<sup>20</sup> Full investment and support of all branches of the institution are necessary to result in a successful student support program. In the end, the outcome of a successful student support system should be

successful students. For institutions of higher learning, the issue is no longer only how to offer the education at a

distance; it is how to support the students who are the end-users.<sup>25</sup>

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