Multicultural Effectiveness Assessment of Students in IS Courses
Margavio, Tom;Hignite, Mike;Moses, Duane;Margavio, Geanie W
Journal of Information Systems Education; Winter 2005; 16, 4; Research Library
pg. 421

Multicultural Effectiveness Assessment of Students in IS Courses

Tom Margavio
Mike Hignite
Duane Moses
Computer Information Systems Department
TomMargavio@smsu.edu MikeHignite@smsu.edu DuaneMoses@smsu.edu

Geanie W. Margavio
School of Accountancy
Southwest Missouri State University
Springfield, MO 65804
GeanieMargavio@smsu.edu

ABSTRACT

Previous research efforts have identified certain values, traits or personality characteristics associated with success in international or multicultural settings. This study was designed to assess the multicultural effectiveness levels of a group of students enrolled in Information Systems (IS) courses, and factors associated with that adaptability, with resulting implications for developing strategies for success in preparing students for an increasingly global, multicultural business environment. Using the Multicultural Personality Questionnaire (MPQ) as the instrument to assess students' profiles, results of the study indicate that the vast majority of students participating in this study possessed profiles that were generally positive in terms of multicultural effectiveness constructs. Results of the study further indicate the existence of significant relationships between such factors as multicultural experience and globalization courses taken and increased scores on the measures of multicultural effectiveness. Recommendations derived from the study include suggestions for future research designed to determine if changes in the educational experiences of students can be made that will directly affect the multicultural adaptability of students.

Keywords: Multicultural effectiveness, globalization, business students, cultural adaptability

1. INTRODUCTION

In addition to the increasing globalization of business, a number of Information Technology (IT) specific initiatives have created demand for professionals with a global multicultural perspective. Multinational corporations' information systems increasingly operate across geographic and political boundaries; web applications span the globe and market to a global audience; and the advent of near-shoring and offshoring projects may segment application development and project management across both countries and cultures. Clearly, each of these cases demonstrate the need to more fully insure that future IT/business professionals possess the attributes necessary to operate successfully across cultures in a global environment.

From an educational perspective, there has been a variety of research performed documenting efforts designed to "globalize" the education of business students. Ranging in scope from experiential and social environment changes, to structural change of programs and institutions, a variety of authors have suggested numerous ways to allow students to develop a broader multicultural and global perspective (Kedia and Harveston, 1998; Fugate and Jefferson, 2001; Trevino and Melton, 2002; Greene and Zimmer, 2003; Klak and Martin, 2003; Sizoo and Serrie, 2004).

With the recent and ongoing discussions and research regarding the globalization of business, one might expect that the question would soon be asked if students participating in Information Systems (IS) coursework are prepared to be successful in such an environment. This study attempts to address that question by investigating the multicultural effectiveness profiles of a targeted group of students.

The study further investigates the relationship between certain demographic variables and the multicultural effectiveness levels of students. By looking closely, then, at both the adaptability levels and factors associated with those

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

levels among students, our goal was to identify components of the educational experience with the potential to facilitate higher levels of cultural awareness and effectiveness among this group of students who most certainly represent tomorrow's business professionals.

2. RELATED STUDIES

In a study of the cultural adaptability of business college students, McPherson (2004) found varied levels of cultural adaptability constructs among the subjects studied. While exhibiting fairly high scores on the construct which indicated students enjoyed interacting with those from different cultures, the subjects of the study achieved far below average scores on the measure of their flexibility and openness to other cultures.

In addition to the simple assessment of cultural adaptability, this study focused on investigating the relationship between personality and cultural adaptability. The study did not, however, investigate the relationship between other more readily manipulated variables and cultural adaptability.

In a study of business employees given international assignments, van Oudenhoven, Mol and Van der Zee (2003) found that multicultural effectiveness constructs could be assessed and utilized as predictors of successful cultural adaptation. In studying the areas of social, personal and professional adaptation, the authors of this study identified the construct of emotional stability as the most consistent predictor of successful adjustment.

With international business students as its focus, a study by Van Oudenhoven and Van der Zee (2002) found that among this group of subjects, multicultural effectiveness constructs could be used to predict the success that international students had in adjusting to a global multicultural environment. The authors of this study found that factors such as emotional stability, cultural empathy and social initiative could be accurately assessed and utilized as predictors of "multicultural effectiveness".

Despite some differences in findings, both of these prior efforts indicate that it is possible to accurately assess factors associated with multicultural effectiveness.
It is important to note, however, that there appears to be limited prior research (including those cited) which has investigated not only the level of multicultural effectiveness of business students (specifically Information Systems majors) but also the educational factors that may be related to the development of higher levels of multicultural adaptability.

3. PURPOSES

This study was designed to achieve multiple goals. The first effort was designed to simply assess a group of students enrolled in IS coursework (both IS majors and other business majors) with regard to their levels of multicultural effectiveness or adaptability. In this way, it was believed that we could measure, in a general manner, the students' attitudes and abilities that would either facilitate or limit their abilities to work in a global multicultural environment.

The second purpose of the study was to identify factors related to those multicultural effectiveness constructs, specifically factors that were part of the educational experience and background of those students. Identification of these factors would point to aspects of the educational process that could be explored further in later research in efforts aimed at identifying true causal relationships among or between the factors.

With that second goal of the study in mind, the following factors were investigated with regard to their relationship to the previously identified multicultural effectiveness constructs:

1. Age
2. Gender
3. Major
4. Grade Point Average (GPA)
5. Degree of Socializing/Social Activity
6. International Travel Plans/Experience
7. International/Globalization Coursework Completed
8. Interest in International Work
9. Multicultural Experience

4. PROCEDURES

The Multicultural Personality Questionnaire (MPQ) was the instrument utilized to assess what is broadly known as multicultural effectiveness. Although multicultural environments can exist even in a localized setting, this instrument was designed specifically with international settings in mind.

The MPQ is a recently developed instrument but is well documented as having strong validity and high reliability (Van der Zee and Van Oudenhoven, 2000, 2001, 2002). The version of the instrument used in this study consisted of 91 items. The dependent variables of interest identified by the instrument were cultural empathy, openmindedness, emotional stability, social initiative and flexibility. The authors of the MPQ (Van der Zee and Van Oudenhoven, 2001, pp. 286-7) describe these constructs in the following manner:

Cultural Empathy: "The ability to empathize with the feelings, thoughts, and behaviors of individuals from a different cultural background..."
Openmindedness: "An open and unprejudiced attitude toward different groups and toward different cultural norms and values"
Emotional Stability: "The tendency to remain calm in stressful situations..."
Social Initiative: "A tendency to approach social situations in an active way..."

Flexibility: "A tendency to regard new and unknown situations as a challenge and to adjust one's behavior to the demands of new and unknown situations Our subjects consisted of 244 students in various classes throughout the IS

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Construct	Number Of Items	Item Mean	Item SD	Total Score Mean	Maximum Total Score	Total Score SD	Total Score Mean as a % of Total Score
Cultural Empathy	18	3.80	.49	68.42	90	8.819	76%
Openmindedness	18	3.53	.57	63.52	90	10.303	71%
Emotional Stability	20	3.24	.51	64.73	100	10.162	65%
Social Initiative	17	3.55	.55	60.27	85	9.314	71%
Flexibility	18	3.14	.47	56.54	90	8.446	63%

Table 1: Summary statistics of the dependent variables (N=244)

curriculum with all of the participating classes being taught by IS instructors. The students who participated in this study came from a pool of some 800 students consisting of IS majors, minors, and other business majors taking IS classes at a large mid-western university. The data was collected during regularly scheduled class meetings in the various courses throughout the IS curriculum. Study participation by the individuals in the class was voluntary. In addition to the MPQ data gathered, data related to student demographic characteristics (age, gender, grade point averages, etc.) was also collected.

5. RESULTS

5.1 Multicultural Effectiveness Questionnaire

The summary of the 244 students' responses to the MPQ are provided in Table 1. The number of items, total score means and total mean score as a percent of total score are other statistics also provided. These latter statistics are utilized in the analysis presented in the following section of the paper

5.2 Demographic Data

The following results are summarized in Table 2. The independent (demographic) variables of interest were: *age*, *gender*, *major*, *cumulative GPA*, *degree of socializing*, *international travel and/or experience*, completion of *international coursework*, *interest/experience in international work* and *multicultural experience*.

Given that there is an extremely limited amount of research in the area of multicultural effectiveness among students let alone research related to the demographic variables that might possibly be related to such, demographic variables were chosen based on traditional research efforts and speculation on the part of the researchers regarding variables that might be related to performance on the MPQ.

It is also important to note that in some instances, groups within each category of demographic data were established in order to provide normal distributions for the means required for the ANOVA model utilized in data analysis. For example, while detailed data was collected with regard to the various ages of our subjects there were only two sub groups, traditional and non-traditional, that were established. This is due to both practices followed in prior research and also because such sub-groups provided the necessary group size and means required for the statistical analysis techniques utilized in the study.

Age	n	%
Traditional (Ages 17 – 22)	128	52
Nontraditional (Ages 23 or older)	116	48
Gender		
Male	170	70
Female	74	30
Major		
Majors	118	48
Non-majors	126	52
Overall GPA		
Less than 3.0	76	31
Greater than or equal to 3.0	168	69
Degree of socializing		
Highly involved in social activities	43	18
Involved in social activities	102	42
Not involved in social activities	99	40
International travel		
Plans to travel internationally	166	68
No international travel plans	78	32
International coursework		
Completed at least one class	150	62
Did not complete any classes	94	38
Interest in International Work		
Yes	114	47
No	130	53
Multicultural Experience		
High degree	53	22
Moderate level	102	42
Little if any experience	89	36

Table 2: The independent variables of interest

5.3 Influence of Demographic Factors.

Before describing the results of the ANOVA analyses presented in Table 3, it is important to note that in an attempt to investigate whether the independent variable *major* could be of significance, in that IS majors might respond differently than non-majors with regard to the multicultural effectiveness test items, each of the five ANOVA models were run for both IS majors and non-majors. The results of this analysis indicate that majors and non-majors responded the same, i.e., this factor was never significant. A 0.05 level of significance was used for all of our tests. Our post hoc tests were performed using Tukey's HSD test also using a 0.05 level of significance for all of the comparisons that were performed for each significant factor. As a result of these findings, no further distinction will be made in terms of results reported for majors or non-majors.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

5.3.1 Cultural Empathy

Our dependent variable, *cultural empathy*, had two factors that were identified as being significant. *International/Globalization coursework* and the *age of the student* were the significant factors in this model. Again, the ANOVA results are displayed in Table 3. The follow-up Post Hoc results are displayed in Table 4.

Based on the results of the analysis illustrated in Table 4, with regard to the dependent variable, *cultural empathy*, we can conclude that the mean cultural empathy score of the students that had taken one or more classes in the international subjects' area for their degree program was significantly higher than students that had not taken any classes in their international subjects for their degree program. Also, the mean cultural empathy score of traditional students is significantly lower than the mean cultural empathy score of nontraditional students.

The follow-up Post Hoc results are displayed in Table 5. The age of the student, his/her intention to work internationally and the cultural experience of the student were the significant factors in this model.

Cultural Empathy					
Source	Sum of Squares	degrees of freedom	Mean Square	F	p-value
Age	410.881	1	410.881	5.424	.021
Int'l Subjects	332.165	1	332.165	4.385	.037
Major	0.153	1	0.153	0.002	.964
Error	18182.098	240	75.759		
Corrected Total	18899.520	243			
Openmindedness					
Source	Sum of Squares	degrees of freedom	Mean Square	F	p-value
Age	937.039	1	937.039	12.307	.001
Work Intern'lly	1633.781	1	1633.781	21.458	.000
M'cultural Exp	2566.338	2	1283.169	16.853	.000
Major	119.813	1	119.813	1.574	.211
Error	18120.733	238	76.138		
Corrected Total	25794.934	243			
Emotional Stability					
Source	Sum of Squares	degrees of freedom	Mean Square	F	p-value
Age	1425.830	1	1425.830	16.559	.000
Gender	1506.747	1	1506.747	17.499	.000
Overall GPA	967.140	1	967.140	11.232	.001
Social Interact'n	866.726	2	433.363	5.033	.007
Major	254.169	1	254.169	2.952	.087
Error	20407.273	237	86.107		
Corrected Total	25095.684	243			
Social Initiative					
Source	Sum of Squares	degrees of freedom	Mean Square	F	p-value
Social Interact'n	1094.278	2	547.139	7.162	.001
M'cultural Exp	1346.772	2	673.386	8.815	.000
Major	238.930	1	238.930	3.128	.078
Error	18180.947	238	76.391		
Corrected Total	21078.602	243			
Flexibility					
Source	Sum of Squares	degrees of freedom	Mean Square	F	p-value
Age	309.506	1	309.506	5.119	.025
Work Intern'lly	1195.586	1	195.586	19.775	.000
M'cultural Exp	464.082	2	232.041	3.838	.023
Major	175.307	1	175.307	2.900	.090
Error	14389.018	238	60.458		
Corrected Total	17334.590	243			

Table 3: ANOVA Results

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

International Subjects	Mean	Standard Error	Sample Size
Yes	69.411	0.712	150
No	67.008	0.900	94
Age			
Traditional	66.908	0.784	128
Nontraditional	69.511	0.817	116

Table 4: Cultural Empathy

Age	Mean	Standard Error	Sample Size
Nontraditional	66.495	0.824	116
Traditional	62.477	0.808	128
Work Intern'lly			
No	61.786	0.810	130
Yes	67.186	0.837	114
Multicultural Exp			
High	69.036	1.212	53
Moderate	64.499	0.865	102
Very Little if Any	59.922	0.971	89

Table 5: Openmindedness

From this data it can be seen that for the dependent variable, *openmindedness*, we can conclude that nontraditional students had a significantly higher mean openmindedness score than the traditional students. In addition, students who intended to work internationally had a significantly higher mean openmindedness score than those students that had no intention of working internationally.

Furthermore, we can conclude that students with a high degree of cultural experience had a significantly higher mean openmindedness score than the student with a moderate degree of cultural experience. We can also conclude that students with a high degree of cultural experience had a significantly higher mean openmindedness score than the student with very little if any degree of cultural experience. Furthermore, students with a moderate degree of cultural experience had a significantly higher mean openmindedness score than those that had very little if any degree of cultural experience.

5.3.3 Emotional Stability

Our dependent variable, *emotional stability*, had several significant factors. The ANOVA results are displayed in Table 3. The follow-up Post Hoc results are displayed in Table 6. These significant factors were the age, the gender, the overall GPA and the social interaction of the student.

From this table it can be seen that for the dependent variable, *emotional stability*, we can conclude that nontraditional students had a significantly higher mean emotional stability score than the traditional students. We can also conclude that female students had a significantly lower mean emotional stability score than male students.

Age	Mean	Standard Error	Sample Size
Traditional	60.655	0.920	128
Nontraditional	65.543	0.990	116
Gender			
Female	60.289	1.169	74
Male	65.909	0.801	170
Overall GPA			
3.0 or higher	65.92	0.811	168
Less than 3.0	62.12	1.017	76
Degree of Socialization			
Highly Involved	64.081	1.464	43
Involved	64.608	1.014	102
Not Involved	60.608	1.006	99

Table 6: Emotional Stability

Furthermore, we were able to determine that the mean emotional stability score for students that are not involved in social activities was not statistically different from the mean emotional stability score of students that were highly involved in social activities. We were also able to determine that the mean emotional stability score of students that were highly involved in social activities were not statistically different from the mean emotional stability score of students that are involved in social activities. However, students that are involved in social activities had a higher mean emotional stability score than students that are not involved in social activities.

Finally, students with a GPA of 3.0 or higher had a higher mean emotional stability score than those students that have a GPA that is less than 3.0.

5.3.4 Social Initiative

Our dependent variable, *social initiative*, had two significant factors. The ANOVA results are displayed in Table 3. The follow-up Post Hoc results are displayed in Table 7.

Degree of Socialization	**Mean**	**Std Error**	**n**
Highly Involved	64.483	1.359	43
Involved	61.286	0.877	102
Not Involved	58.536	0.897	99
Multicultural Exp			
High	64.701	1.226	53
Moderate	61.254	0.878	102
Very Little if Any	58.350	0.984	89

Table 7: Social Initiative

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

For our dependent variable, *social initiative*, we can make the following conclusions. We were able to determine that the mean social initiative score for students that are highly involved in social activities was higher than the mean social initiative score for students that were not involved in social activities. We were also able to determine that the mean social initiative score for students that were highly involved in social activities was not statistically different from the mean social initiative score for students that are involved in social activities. However, students that are involved in social activities do have a significantly higher mean social initiative score than students that are not involved in social activities.

Furthermore, we can conclude that the mean social initiative score of students with a high degree of multicultural experience was not significantly different than the mean social initiative score of students with a moderate degree of multicultural experience. Students with a high degree of multicultural experience had a significantly higher mean social initiative score than a student that had very little if any degree of multicultural experience. Also, the mean social initiative score of students with a moderate degree of multicultural experience was significantly higher than the mean social initiative score of the students that had very little if any degree of multicultural experience.

5.3.5 Flexibility

Our dependent variable, *flexibility*, had several significant factors (Table 8). These significant factors were the age of the student, intention to work internationally and the degree of multicultural experience.

Age	Mean	Standard Error	Sample Size
Nontraditional	58.262	0.735	116
Traditional	55.953	0.720	128
Work Internationally			
No	54.798	0.722	130
Yes	59.417	0.746	114
Multicultural Experience			
High	59.391	1.080	53
Moderate	56.176	0.771	102
Very Little if Any	55.756	0.865	89

Table 8: Flexibility

For the dependent variable, *flexibility*, we can make the following conclusions. Nontraditional students had a significantly higher mean flexibility score than traditional students. Students who intended to work internationally had a significantly higher mean flexibility score than students who did not intend to work internationally.

Furthermore, we can conclude that mean flexibility score of students with a moderate degree of multicultural experience was not significantly different than the mean flexibility score of students with a little if any degree of multicultural experience. Students with a high degree of multicultural experience, however, did have a significantly higher mean flexibility score than a student that had a moderate degree of multicultural experience. In addition, students with a high degree of multicultural experience had a significantly higher mean flexibility score than a student that had very little if any degree of multicultural experience.

6. SUMMARY

The purpose of this study was twofold: first, the study was designed to assess subjects with regard to their level of multicultural effectiveness; second, the study investigated the relationships that existed between a number of demographic variables and those scores on the multicultural effectiveness instrument. With regard to that first objective, the students' scores on the multicultural effectiveness instrument (MPQ) were generally positive. While formal norms have yet to be established for the recently developed MPQ, as can be noted from Table 1, the total score means for each of the adaptability constructs were all above 60% of the total possible scores. Most impressive was the 76% mean score achieved in the area of *cultural empathy*. Of some concern is the relatively low score of 63% recorded for the *flexibility* construct.

The item mean scores also compared very favorably to those reported by the instrument's authors (Van der Zee and Van Oudenhoven, 2001, p. 282). This comparison becomes a bit more interesting when it is noted that those results were established in studies conducted with international student populations.

With regard to the relationships identified between the nine demographic variables of interest and the constructs associated with multicultural effectiveness, seven of the nine variables were found to contribute to students' adaptability scores:

1. The subject's **age** appeared to be a factor in relationship to four of the five adaptability variables. Non-traditional students had a significantly higher mean score than traditional students on the *cultural empathy*, *openmindedness*, *emotional stability* and *flexibility* constructs. Only with regard to the dependent variable *social initiative* was age not a factor.

2. **Gender** was only related to the scores for one construct, *emotional stability*. In this area, males exhibited a significantly higher mean score than did the female subjects.

3. The distinction between **majors** and non-majors was not significant with regard to any of the adaptability constructs. No significant differences were found to exist between IS majors and the other business majors taking part in the study.

4. **Grade point average** was identified as being related to the *emotional stability* construct. Those with higher GPA's achieved significantly higher mean scores on this construct than did those with lower GPA's.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

5. The **degree of socialization** of the subjects was related to scores on two of the assessed constructs. On the average, highly social students scored significantly higher with regard to *emotional stability* and, not surprisingly, *social initiative* measures.

6. **International travel plans** and/or experience were not found to be related to any of the adaptability constructs.

7. **International or globalization coursework** was found to be a significant factor in relationship to the *cultural empathy* construct.

8. A subject's interest in and/or desire to **work internationally** was significant with regard to scores achieved on the *openmindedness* and *flexibility* constructs.

9. Finally, **multicultural experience** contributed significantly to the measures of *openmindedness*, *social initiative* and *flexibility*.

7. CONCLUSIONS AND RECOMMENDATIONS

It is generally accepted that some inherent student characteristics may not be altered by standard academic experiences. Therefore, we can not always expect to be able to change students to make them more successful. With the information gained from this study, however, we are offered the possibility that there are some educational experiences that might be modified in order to allow more students to operate more effectively in their future work in a global, multicultural environment.

For example, while age was a significant factor related to multiple multicultural effectiveness variables and is not easily controlled, the amount of multicultural experience and the number of international/globalization courses that a student is exposed to are factors which educators and institutions do have the ability to manipulate positively. Again, these findings offer the possibility that preparing students to be more effective and successful in such an environment is an opportunity that may be available to educators.

This study, however, is simply a first step in the investigation of those factors associated with multicultural effectiveness. In the future, additional studies of an experimental nature should be considered.

For example, additional follow-up studies could be performed in an attempt to determine if multicultural effectiveness levels as measured by the MPQ could be directly manipulated through greater exposure to multicultural experiences and/or the addition of global/international coursework to a student's required program of study.

Ultimately, if through this research and proposed efforts, educators can begin to more positively affect the multicultural effectiveness of students by modifying curriculum and/or the educational experiences of those students, only then will students be truly well prepared to be successful in a global workplace.

8. REFERENCES

Fugate, D. L. and Jefferson, R. W. "Preparing for Globalization—Do We Need Structural Change for Our Academic Programs?" Journal of Education for Business, Vol. 76, No. 3, January/February 2001, pp. 160-166.

Greene, C. S. and Zimmer, R. "An International Internet Assignment—Assessment of Value Added," Journal of Education for Business, Vol. 78, No. 3, January/February 2003, pp. 158-163.

Kedia, B. L. and Harveston, P. D. "Transformation of MBA Programs: Meeting the Challenge of International Competition," Journal of World Business, Vol. 33, No. 2, 1998, pp. 203-217.

Klak, T. and Martin, P. "Do university-sponsored international cultural events help students to appreciate "difference"? International Journal of Intercultural Relations, Vol. 27, Issue 4, July 2003, pp. 445-465.

McPherson, W. "Cultural Adaptability and Personality Type in Business College Students," Journal for Global Business Education, Vol. 4, June, 2004, pp. 49-71.

Sizoo, S. and Kendrick, S. "Developing Cross-Cultural Skills of International Business Students: An Experiment," Journal of Instructional Psychology, Vol. 31, No. 2, 2004, pp. 160-166.

Trevino, L. J. and Melton, M. "Institutional Characteristics and Preconditions for International Business Education-An Empirical Investigation," Journal of Education for Business, Vol. 79, No. 4, March/April 2002, pp. 230-235.

Van der Zee, K. I. and Van Oudenhoven, J. P. "The Multicultural Personality Questionnaire: A Multidimensional Instrument of Multicultural Effectiveness," European Journal of Personality, Vol. 14, 2000, pp. 291-309.

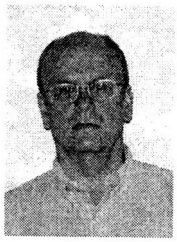
Van der Zee, K. I. and Van Oudenhoven, J. P. "The Multicultural Personality Questionnaire: Reliability and Validity of Self- and Other Ratings of Multicultural Effectiveness," Journal of Research in Personality, Vol. 35, 2001, pp. 278-288.

Van Oudenhoven, J. P. and Van der Zee, K. I. "Predicting multicultural effectiveness of international students: the Multicultural Personality Questionnaire," International Journal of Intercultural Relations, Vol. 26, 2002, pp. 679-694.

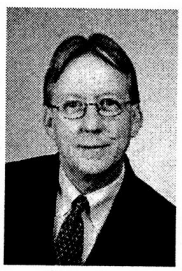
Van Oudenhoven, J. P., Mol, S. and Van der Zee, K. I. "Study of the adjustment of Western expatriates in Taiwan ROC with the Multicultural Personality Questionnaire," Asian Journal of Social Psychology, Vol. 6, 2003, No. 2, p. 159.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

AUTHOR BIOGRAPHIES



Tom Margavio obtained a Ph.D. in Statistics from the University of Alabama in 1990 after teaching mathematics and science in Catholic High Schools in New Orleans, La.,. He now teaches computer programming, PC Hardware and Computer Networking in the Computer Information Systems Department at Missouri State University. He has also taught Analysis of Variance & Experimental Design in the Math Department at MSU.



Mike Hignite has approximately 8 years of industry experience in the area of applications development and systems analysis and design. He holds a Ph.D. from the University of Missouri-Columbia and has been a faculty member at Missouri State University for the past 15 years. He is currently a Professor in the Computer Information Systems Department and Director of the MBA Program for the College of Business.

Geanie W. Margavio worked as a CPA for six years for two CPA firms in New Orleans. She also worked for two years as a controller for a company that is now listed on the New York Stock Exchange. She obtained a Ph. D. in Accounting from the University of Alabama in 1990. She now teaches Accounting Principles, Intermediate Accounting and Governmental Accounting for the School of Accountancy at Missouri State University. She also has interest in teaching Accounting Information Systems at MSU.

Duane R. Moses received his Ph.D. from the University of Missouri and has been a member of the faculty at Missouri State University since 1990. He is an Associate Professor in the Computer Information Systems Department and teaches in the area of object oriented application development.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Information Systems & Computing
Academic Professionals

STATEMENT OF PEER REVIEW INTEGRITY

All papers published in the Journal of Information Systems Education have undergone rigorous peer review. This includes an initial editor screening and double-blind refereeing by three or more expert referees.

Copyright ©2005 by the Information Systems & Computing Academic Professionals, Inc. (ISCAP). Permission to make digital or hard copies of all or part of this journal for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial use. All copies must bear this notice and full citation. Permission from the Editor is required to post to servers, redistribute to lists, or utilize in a for-profit or commercial use. Permission requests should be sent to the Editor-in-Chief, Journal of Information Systems Education, editor@jise.org.

ISSN 1055-3096