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DESIGNING INSTRUMENTS FOR ASSESSING THE EFFECTIVENESS OF SIMULATIONS

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PURPOSE:

Using a panel/workshop approach, the purpose of this seminar is to identify alternative instruments designs that would provide objective assessment of learning outcomes achieved through the use of simulation exercises.

METHOD USED:

A Delphi technique will be utilized. The first stage will be to brainstorm possible instrument designs. Session participants will then work in small groups to identify the major components of the individual designs.

The second stage will consist of a full group discussion of the small group sessions. The focus of this stage will be to (1) crystallize the major constructs to be included in each instrument and (2) identify the most promising designs.

OBJECTIVE:

The objective of the workshop is to begin to develop 2 or *3* instruments that have possible assessment capabilities for measuring learning outcomes at the higher levels of Bloom's Taxonomy. These instruments would then be used by ABSELers at various institutions in conjunction with differing simulation exercises. By so doing, we should foster a systematic move away from perceptions toward a more objective basis for assessing the learning value of simulations. Using these instruments at multiple institutions should also help build a database for determining the validity and reliability of the instruments.

RATIONALE FOR SEMINAR

Assessing what students learn on a business simulation exercise has been a focus in the literature and at ABSEL conferences since simulation exercises were first introduced (Greenlaw and Wyman, 1973; Keys, 1976; Wolfe, 1985; Whiteley and Faria, 1989; Burns, Gentry, and Wolfe, 1990; Wolfe, 1990; Gosenpud, 1990; Wellington and Faria, 1991; Anderson and Lawton, 1992; Gosenpud and Washbush, 1993, 1994; Anderson and Lawton, *1995;* Washbush and Gosenpud, 1995). Debate continues as to what, if anything, is learned and whether there is objective versus anecdotal evidence to support the conclusions reached.

Jim Gentry organized a seminar on the relationship between learning and simulation exercises for ABSEL's 1996 conference. While there was considerable debate, there was also little resolution. The focus of this proposed seminar is to begin the process of developing instruments that collect valid, reliable, and objective data, which will facilitate resolution of the debate. As "scientists", we need to develop insights based on objective rather than subjective data. This seminar will facilitate that process.

REFERENCES

Anderson, PH. and L. Lawton (1992), "The Relationship Between Financial Performance and other Measures of Learning on a Simulation Exercise", Simulation & Gaming, 23 (3), 326-340.

Anderson, P.H. and L. Lawton (1995), "The Problem of Determining an "Individualized" Simulation's Validity as an Assessment Tool", Developments in Business Simulations and Experiential Exercises, 22, pp.43-48.

Bums. AC., J.W. Gentry, and J. Wolfe (1990), "A Cornucopia of Considerations in Evaluating the

Effectiveness of Experiential Pedagogies," in Guide to Business Gaming and Experiential Learning, J.W. Gentry (ed.), New York: Nichols/GP Publishing. 253-278.

Gosenpud. J. (1990), "Evaluation of Experiential Learning," in Guide to Business Gaming and Experiential Learning, J.W. Gentry (ed.), New York: Nichols/GP Publishing, 301-329.

Gosenpud, J. and J. Washbush (1993), "The Relationship Between Total Enterprise Simulation Performance and Learning." Developments in Business Simulations and Experiential Exercises, 20, 141.

Gosenpud, J. and J. Washbush (1994), "Simulation Performance and Learning Revisited." Developments in Business Simulations and Experiential Exercises. 21, 83-86.

Greenlaw, P.S. and F.P. Wyman (1973), "The Teaching Effectiveness of Games in Collegiate Business Courses." Simulation and Games, 4 (3), 259-293.

Keys, B. (1976), "A Review of Learning Research in Business Gaming." In B.H. Sord (ed.), Computer Simulations and Learning Theory, 173-184.

Washbush, John and Jerry Gosenpud (1995), "Simulation Performance, Learning, and Struggle," Developments in Business Simulation & Experiential Exercises, VoL 22, 1-4.

Wellington, W.J. and AJ. Faria (1991), "An Investigation of the Relationship Between Simulation Play, Performance Level, and Recency of Play on Exam Scores", Developments in Business Simulations and Experiential Exercises 18, 177.

Whiteley, T.R. and A.J. Faria (1989), "A Study of the Relationship between Student Final Exam Performance and Simulation Game Participation." Developments in Business Simulations and Experiential Exercises, 16, 78-82.

Wolfe. J. (1985), "The Teaching Effectiveness of Games in Games in Collegiate Business Courses: A 1973-83 Update." Simulation and Games, 16. 251-288.

Wolfe, J. (1990), "The Evaluation of Computer-based Business Games: Methodology, Findings, and Future Needs," in Guide to Business Gaming and Experiential Learning, J.W. Gentry (ed.), New York: Nichols/GP Publishing, 279-300.