

# ABSEL RESEARCH -- ONE ADDITIONAL PERSPECTIVE ON WHERE WE ARE AND WHERE WE HAVE COME FROM

Daniel R. Strang  
SUNY Geneseo  
Strang@Geneseo.edu

## ABSTRACT

*This study uses citation analysis to build on the work that has been done in the past by researchers who were attempting to assess the quality of research published in the venues most commonly used by ABSEL members. This paper reviews and categorizes the work that other researchers have done in their efforts to assess the quality of ABSEL research. In this study, an extensive citation analysis is performed on the articles that appear in the ABSEL Proceedings from 1984 to 2006. A citation analysis is also performed on the articles appearing in Simulation & Gaming from 1996 to 2005. A profile of the “typical” paper in the ABSEL Proceedings and the “typical” paper in Simulation & Gaming, in terms of citations, is provided.*

## INTRODUCTION

Over the years, a number of scholarly works have looked the research conducted in several of the research venues utilized by ABSEL researchers. One principal purpose was to get some reading on the quality of research being fostered by the association. After an extensive review of all the literature, it seemed that one aspect, citation analysis, although it was not absent in previous works, might shed additional light on the question. This article reports the results of a very extensive review of not only the research works published in the *ABSEL Proceedings*, but additionally, reports of the results of citation analysis performed on the journal most closely associated with ABSEL, *Simulation & Gaming*.

## LITERATURE REVIEW

Earlier works can be categorized by their mode of emphasis. The works can be grouped based upon:

1. research design utilized in the works
2. measurement (and analysis) of learning outcomes
3. use of content analysis
4. classification of past research efforts

## RESEARCH DESIGN

As early as 1977 Bernie Keys, conducted some preliminary analysis that focused on the basic research methodology underlying the works of papers published in the *ABSEL Proceedings*. Keys' work was the first of a long

list of ABSEL efforts designed to provide insights into the quality of ABSEL research. Incidentally, the name *ABSEL Proceedings* is being used at this point for convenience. A fuller discussion of a number of issues relating to the use of this name is included later in this paper.

Faria and Wolfe in 1999, and Faria in 2000, provided additional insights into key elements of the quality of research. Faria (2000) delineates three key factors:

- 1) Post-hoc analysis of factors associated with high game performance or correlates of simulation performance,
- 2) effectiveness of games in strategic management courses, and
- 3) focus on what business games teach for the ABSEL history as dimensions of research efforts.

In 2001, Faria broadens the focus to a scholarly group that includes not only ABSEL contributors, but researchers contributing to *Simulation & Gaming*, as well. In 2004, Gosen and Washburn categorize dimensions of research differently than Faria. Two of Gosen and Washburn's measures are substantially the same as the first and second as proposed by Faria, while the third focuses on the instruments used to measure the effectiveness of simulations and experiential exercises as teaching/learning systems.

Several researchers have been more critical of ABSEL research than Faria, Gosen, and Washburn. Wolfe (1981) and Wolfe and Crookall (1998) are perhaps the most critical and indicate that simulation/gaming literature has progressed relatively slowly in regard to the validity of its various research practices. As early as 1981, Wolfe set the standard of Campbell and Stanley (1963) to push for more rigorous research designs in ABSEL scholarship. While Wolfe stressed the need for carefully constructed research designs, Patz et al. (1999) felt the need for a more results-oriented approach was more important. Patz dismissively states that “pedagogical research is aimed at producing results—not at advancing the current fashionable and almost fleeting notions of an elite at a local university or editorial staff of a widely distributed journal.”

Butler et al. (1985) took a more analytical approach and performed an audit of the papers published in the annual proceedings of ABSEL, recorded the incidence of some of the elements of a “rigorous research design” and defined three key elements of a “rigorous research design” as randomization, control, and treatment. In 2006, Howard et al. revisited the issue and performed an updated audit of

## Developments in Business Simulation and Experiential Learning, Volume 34, 2007

ABSEL articles using the key elements of design as defined in the Butler (1985) paper.

### LEARNING OUTCOMES

In their study in 1985, Butler et al. also performed an audit of the papers published in the annual proceedings of ABSEL recording and measuring outcomes based upon Bloom's (1956) Taxonomy. In 2006, Howard et al. revisited the issue and performed an updated audit of ABSEL articles based upon educational outcomes again using Bloom's criteria as operationalized in the Butler (1985) paper. Anderson and Lawton (1997) make a compelling argument for papers addressing learning to specify learning objectives and they resourcefully provide their own classification scheme.

### CONTENT/TAXONOMIC APPROACH

In a seminal, article Krippendorf (1980) advances the concept of content analysis and describes it as "a research technique of making replicable and valid inferences from data to their context." Krippendorf indicates, "One form of content analysis that is utilized by researchers is classified as semantical content analysis." Several ABSEL researchers have looked at published ABSEL works and subjected them to a form of semantical content analysis. In 1986, Goosen advances the taxonomy and suggests categories of simulation and experiential research such as design & construction, simulation administration, innovative uses, descriptive uses, and a general category. In 2001, Howard and Strang (2001) conduct a content analysis using incidence of key words in titles of papers in the *ABSEL Proceedings*. Again in 2003, Howard and Strang (2003) perform a content analysis. In the second paper, they used the key words that had emerged as significant in the earlier study. In the second study, all occurrences of keys words, both in the titles and the text of the papers, were used as the key indicator.

### PROFILES OF AWARD-WINNING PAPERS

As a measure of quality with a far narrower scope, Markulis et al. (1991) studied procedures and protocols of the papers that had been selected by ABSEL as award winners. In their work, the authors considered elements of research design, and learning outcomes that have been used by other ABSEL researchers, as well a several other dimensions.

### FOCUS ON SUB-DISCIPLINES

Several evaluative studies have used the specific sub-discipline as the key metric for purposes of analysis. These studies performed research on simulations and experiential exercises categorized by the sub-discipline within the broad umbrella of business such as international business, accounting, marketing, finance, OB, production, policy (Butler, 1999, Graf, 1999). In 1999, Kelley focused on experiential exercises and recorded the articles in each of

several sub-disciplines and also recorded the specific activity type such as role-playing, case, etc.

### CITATION INDEXING/CITATION ANALYSIS

The manner by which researchers perform literature reviews has changed significantly in the past several decades. We have all learned that a well-framed "google search" can provide an incredible volume of information about virtually any topic in a matter of seconds. Prior to the availability of search engines such as google, researchers had to employ many other techniques as they performed literature reviews. Citation indexing emerged as a significant aid to researchers in the 1950's. Eugene Garfield (1979) is credited with being a key figure in the development of citation indexing with his creation of the *Science Citation Index* in 1963. Robert Merton, in the preface of Garfield's book, advances the notion that, "Only by publishing their work can scientists make their *contribution* (as the telling word has it) and only when it thus becomes part of the public domain of science can they truly lay claim to it as theirs." Merton further suggests the existence of a "composite communications-intellectual-property-and-reward system" which is the fundamental concept of the citation index.

Several researchers have applied the idea of a citation analysis in its simplest form to assess research by members of ABSEL. In 1989, Markulis et al. considered the references per article as one measure by which to assess ABSEL scholarship. In 2002, Peach and Platt presented their work in which they reported the number of articles published in the Bernie Keys Library categorized by whether references were included or not included. Although Markulis et al. and Peach and Platt can be credited with some preliminary work in citation analysis specifically as it applies to ABSEL research, the current study delves into these issues far more extensively and extends into several areas not covered heretofore.

## METHODOLOGY

The author reviewed each printed article in *Developments in Business and Simulation Exercises*, (hereafter simply referred to as *ABSEL Proceedings*), listed in Bernie Keys Library from 1984 to 2006. A tally was recorded for each article. (It should be noted that some articles were excluded from the tally for reasons, which are explained below.) The tally recorded total citations for the article and the number of citations published by each of several scholarly associations that one would assume that ABSEL scholars would likely consult as they formulate their research. The specific journals and proceedings for which a tally was kept for the period from 1984 to 2006, in addition to the *ABSEL Proceedings*, include: *Academy of Management Journal*, *Academy of Management Proceedings*, *Academy of Management Review*, *Administrative Science Quarterly*, *Decision Sciences*, *Harvard Business Review*, *Journal of Business*, *Journal of*

## Developments in Business Simulation and Experiential Learning, Volume 34, 2007

*Experiential Learning and Simulation, Management Science, and Strategic Management Journal.*

In 1991 a collection of articles focusing on simulations and experiential exercises was written in the *Guide to Business Gaming and Experiential Learning*. Beginning in 1992, citations began to appear in the *ABSEL Proceedings* from the *Guide to Business Gaming and Experiential Learning*, so the incidence of citations in the *Guide* was recorded for the years 1992 to 2006.

In addition to the publication of annual proceedings of conferences, ABSEL has had an official journal throughout its history. In the early years of ABSEL, the official journal's name was *Simulation & Games: An International Journal of Theory, Practice and Research*, from March 1989 to December 1999 the name of the official journal was changed to *Simulation & Gaming: An International Journal of Theory, Practice and Research* and beginning in 2000 the name of the official journal was again changed to *Simulation & Gaming: An Interdisciplinary Journal of Theory, Practice and Research*. For the sake of simplicity, the specifics of the minor name changes will be ignored and the journal will be referred as *Simulation & Gaming* for the remainder of this paper.

The author reviewed each printed article in *Simulation & Gaming* from 1996 to 2005 and a tally of total citations for selected scholarly outlets was recorded for all articles that were not excluded for reasons detailed below.

**EXCLUDED ARTICLES:** A judgment was made to initiate the citation analysis for papers in *ABSEL Proceedings* beginning in 1984. It seemed reasonable to allow the ABSEL organization a ten-year start-up time to amass a body of knowledge before scrutinizing the citation proclivities of the organization. Since the purpose of the citation analysis of the papers appearing in *Simulation & Gaming* was to develop a basis for comparing and benchmarking papers in the *ABSEL Proceedings*, only the papers appearing during the last ten years of *Simulation & Gaming* were analyzed.

### CLARIFICATIONS, DEFINITIONS AND ADJUSTMENTS

**PROCEEDINGS NAMES:** The names of the *ABSEL Proceedings* have also undergone some evolutionary changes from 1974 until 2006. For the first six years of ABSEL, each of the annual proceedings was given a unique name as follows:

- 1974 *Simulation games and experiential learning techniques: On the road to a new frontier*
- 1975 *Simulation games and experiential exercises in action*
- 1976 *Computer simulation and learning theory*
- 1977 *New Horizons in simulation games and experiential learning*
- 1978 *Exploring experiential learning: Simulations and experiential exercises*

1979 *Insights into experiential pedagogy.*

Beginning in 1980 ABSEL standardized the name of the annual proceedings to *Developments in Business and Simulation Exercises*. In this work the label, *ABSEL Proceedings*, will be used to denote works published as proceedings from 1974 to 2006.

### CONDENSED PAPERS IN PROCEEDINGS:

Beginning in 1990, ABSEL began designating papers accepted for publication in the *ABSEL Proceedings* as either full papers or as condensed papers. Since in many instances the authors of condensed papers elected to provide minimal references, condensed papers were excluded from the analysis. Condensed papers are not labeled as condensed, so it was not possible in all cases to draw a clear-cut distinction between condensed papers and full papers. To operationalize the analysis in this study it was decided that papers of four or less pages would be defined as condensed papers.

### REFERENCES ON REQUEST OR FULL LIST OF REFERENCES ON REQUEST:

In their work in 2002, Peach and Platt noted the incidence of statements by authors of published papers in the *ABSEL Proceedings* that references would be provided on request. This happening first appeared in 1987, and in the years since 1990, there have been variable numbers with a low of 1 and a high of 18 published papers that have indicated that references would be provided on request. In addition, the authors of several of the papers during the period of time provided abbreviated sets of references and indicated additional references would be provided on request. For the analysis for this study those papers that indicated references (full or partial) would be provided on request were earmarked and treated differently than those papers that may have in fact utilized no references. Thus, some papers had no references because the author indicated that references would be provided on request and some papers simply had no references. When determinations were made in terms of citations per paper--in order not to bias the results--a judgment was made that the denominator for this calculation would exclude those papers that explicitly indicated that references would be provided on request.

**SILVER ANNIVERSARY PAPERS:** In 1999 ABSEL celebrated its 25 anniversary. A collection of "Silver Anniversary Papers" was included in the *ABSEL Proceedings* that year. Since these special papers were outside the typical scholarly papers, and as a result did have references, they were excluded from the citation analysis.

### EXCLUSIONS FROM ANALYSIS OF SIMULATION & GAMING ARTICLES:

A number of "specialty items" that appeared in *Simulation & Gaming* were excluded from analysis. The list of excluded items includes—editorials, notes, reviews, ready-to-use-simulation, symposium papers (examples can be found in June 2002 and December 2002),

## Developments in Business Simulation and Experiential Learning, Volume 34, 2007

Table 1. Results of Citation Analysis for *ABSEL Proceedings* for 1984 to 2006

Year	Total Papers	Total Citations	ABSEL Proceedings	Academy of Management Journal	Academy of Management Proceedings	Academy of Management Review	Administrative Science Quarterly	Decision Sciences	Guide to Business Gaming and Experiential Learning	Harvard Business Review	Journal of Business	Journal of Experiential Learning and Simulation	Management Science	Simulation & Games	Strategic Management Journal	Citations on request	Citations per paper*
1984	67	591	71	14	5	30	4	8	NA	7	2	8	12	19	4	0	8.8
1985	50	443	59	3	7	8	0	0	NA	4	5	6	3	11	0	0	8.9
1986	67	610	107	7	3	10	0	7	NA	5	8	1	5	25	2	0	9.1
1987	64	672	71	10	3	11	4	10	NA	12	0	1	7	15	5	0	10.5
1988	62	720	66	9	2	6	3	11	NA	11	0	0	8	19	4	0	11.6
1989	45	470	90	10	0	6	0	11	NA	1	2	1	3	41	2	1	10.7
1990	38	556	75	6	3	12	6	12	NA	4	0	2	11	39	4	0	14.6
1991	28	324	73	3	0	0	2	2	NA	5	0	1	2	30	1	0	11.6
1992	45	622	101	7	4	4	4	5	8	1	0	1	3	53	0	0	13.8
1993	29	306	33	0	0	3	1	0	6	3	0	1	3	24	2	1	10.9
1994	34	523	52	3	3	7	2	3	14	3	0	0	4	55	1	1	15.8
1995	20	374	89	2	2	2	2	1	13	4	2	0	1	62	1	0	18.7
1996	31	417	66	1	0	10	2	1	4	2	0	0	4	22	7	4	15.4
1997	56	295	54	1	0	0	0	0	6	2	0	1	0	21	0	11	6.6
1998	37	283	41	0	0	1	0	1	3	3	0	0	2	28	0	11	10.9
1999	41	365	57	2	0	4	3	2	7	3	0	0	1	40	1	4	9.9
2000	38	286	26	6	0	3	1	2	2	5	0	0	5	20	0	10	10.2
2001	37	531	114	2	0	7	4	2	9	2	0	0	2	77	2	1	14.8
2002	41	725	176	1	0	0	4	0	5	5	0	0	0	67	3	0	17.7
2003	35	630	184	3	0	2	0	0	11	0	0	0	3	44	2	0	18.0
2004	53	791	166	4	2	2	4	5	7	4	4	0	6	81	5	0	14.9
2005	53	1018	244	2	1	16	2	1	5	7	3	2	0	97	4	0	19.2
2006	45	1076	239	4	1	9	7	1	8	9	2	3	9	58	10	0	23.9
Means	44.2	549	98											41			12.4
Totals	1016	12628	2254	100	36	153	55	85	108	102	28	28	94	989	60		

Legend:

NA -- Guide to Business Gaming and Experiential Learning published in 1991

\* Citations per paper that does not explicitly state "Citations on Request"

reports, responses, communications, "in conversations", and short topics (examples are found in Sept. 1998 in the works by Ken Jones). In the tallying process, the ludography that appeared in at least one *Simulation & Gaming* paper was excluded. These were excluded because they were not full-blown scholarly articles focusing on gaming research.

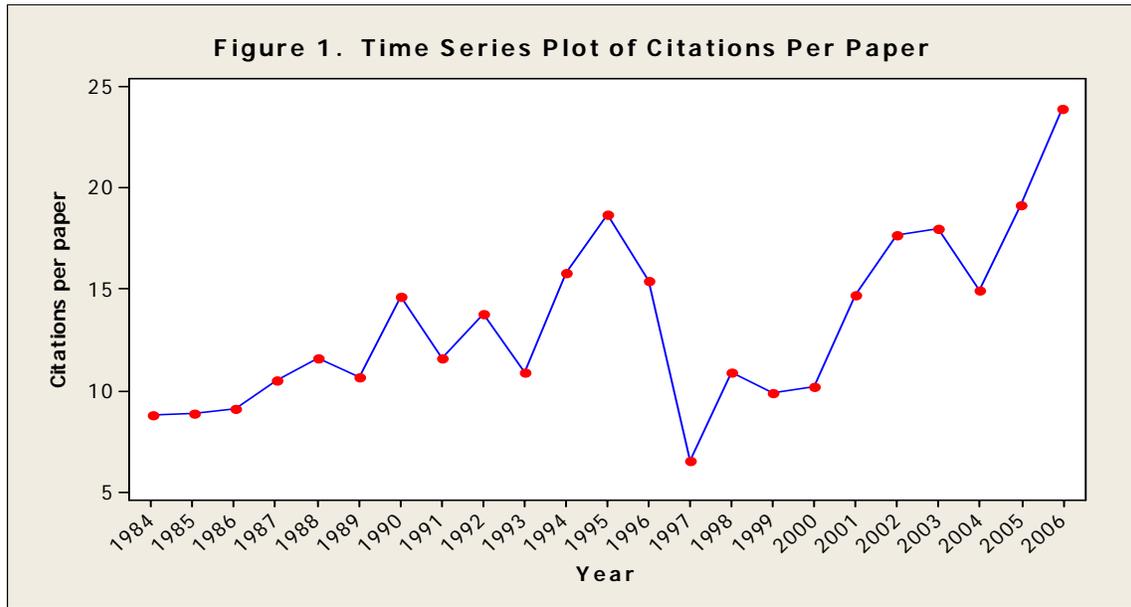
## RESULTS

Table 1 presents the results of the citation analysis for *ABSEL Proceedings* from 1984 to 2006 and Table 2 presents the results of the citation analysis for *Simulation and Games* from 1996 to 2005.

## Developments in Business Simulation and Experiential Learning, Volume 34, 2007

Table 2. Results of Citation Analysis for *Simulation & Games* for 1996 to 2005

Year	Total Papers	Total Citations	Simulation & Games	ABSEL Proceedings	Academy of Management Journal	Academy of Management Proceedings	Academy of Management Review	Administrative Science Quarterly	Decision Sciences	Guide to Business Gaming and Experiential Learning	Harvard Business Review	Journal of Business	Journal of Experiential Learning and Simulation	Management Science	Strategic Management Journal	Citations on request	Citations per paper
1996	16	585	32	31	2	1	3	1	3	1	7	0	1	1	4	0	36.6
1997	16	516	61	35	3	0	10	0	5	5	1	0	3	3	2	0	32.3
1998	16	263	15	7	0	0	1	3	0	0	0	0	0	0	0	0	16.4
1999	32	654	67	13	0	0	0	0	3	8	1	1	0	3	1	0	20.4
2000	21	666	38	1	1	0	6	1	1	0	1	0	0	2	1	0	31.7
2001	34	1194	90	316	1	1	0	0	2	8	1	3	0	1	0	0	35.1
2002	22	599	73	37	2	0	1	0	1	2	0	0	0	0	0	0	27.2
2003	29	851	68	16	5	1	1	6	3	0	0	1	0	5	0	0	29.3
2004	21	747	108	124	4	1	0	0	3	18	0	2	0	1	0	0	35.6
2005	25	851	39	44	1	1	2	4	1	2	3	0	0	1	0	0	34.0
Means	23.2	692.6	59.1	62.4													29.9
Totals	232	6926	591	624	19	5	24	15	22	44	14	7	4	17	8	0	



A number of noteworthy observations and generalizations can be gleaned from the tables.

For example, it is informative to consider the profile of a “typical” ABSEL paper in terms of a pattern of citations—the typical ABSEL paper has about 12 to 13 citations. It is interesting to note a growth over time of the citations per paper with a very significant upturn in recent years with the most recent citations per paper at about 24. Figure 1 shows the changes in citations per paper over time. The typical

ABSEL paper has roughly two citations from *ABSEL Proceedings* and one citation from *Simulation & Gaming*. The other journals or sources that are cited have a much lower incidence. On average, the *Academy of Management Journal*, *Academy of Management Review*, *Management Science*, and the *Harvard Business Review* are cited roughly once for every 10 ABSEL papers. The number of citations for the other journal and sources has been substantially less with two exceptions. Since its publication in 1991, the

## Developments in Business Simulation and Experiential Learning, Volume 34, 2007

*Guide to Business Gaming and Experiential Learning* has appeared in the references for a number of ABSEL papers. Although the number of citations of the *Guide to Business Gaming and Experiential Learning* in ABSEL Proceedings does not match the number of citations of *Simulation & Gaming* articles, in recent years they have eclipsed the *Academy of Management Journal*, *Academy of Management Review*, *Management Science*, and the *Harvard Business Review* and appear on the average roughly once in every 6 ABSEL papers. Additionally in 1996, a new journal called the *Journal of Management Education* was first published. Although no effort was made to include the *Journal of Management Education* in the citation analysis for this study, it was noted that it has been cited increasingly in recent years in ABSEL and it clearly is one of the journals that some ABSELers consult regularly as they do their research.

There are undoubtedly many other interesting observations that might be made based upon the results in Table 1. It seems appropriate to leave that additional scrutiny to the readers so that they may draw their own conclusions and focus on their specific areas of interest.

The citation analysis of *Simulation & Gaming* articles produced some interesting results and provided the obvious opportunity for comparison with ABSEL papers. The typical *Simulation & Gaming* paper has about 30 citations, significantly more than the 12 to 13 citations in the typical ABSEL paper. The typical *Simulation & Gaming* paper has roughly 3 references to *Simulation & Gaming* papers and 3 references to papers from *ABSEL Proceedings*. The incidence of references to most of the other journals and sources that had some level of significance in the citation analysis of *ABSEL Proceedings* is very low. The result is not particularly surprising if one considers the fact that the emphasis of *Simulation & Gaming* has changed and evolved significantly, particularly in recent years. That point is apparent if one looks at the range of topical coverage currently under the purview of *Simulation & Gaming*. For example, one entire edition in recent years focused on issues that relate more closely to modern medical practice than modern business. Under those circumstances, one would not expect the references to focus on traditional business journals. It seems that the editors of *Simulation & Gaming* have established a practice of visiting issues of business simulations and experiential exercises intermittently (i.e., extensively in some volumes and not at all in others). It was noted anecdotally, that the *Guide to Business Gaming and Experiential Learning* was the third most frequently cited source (after the *ABSEL Proceedings* and *Simulation & Gaming*) of those that were considered in the citation analysis in this study.

### CONCLUSIONS

Without overstating the significance of the results, it seems that several conclusions can be drawn. It is clear that many ABSEL scholars have regularly consulted both the *ABSEL Proceedings* and *Simulation & Gaming* as key

sources when they perform literature reviews for many years. Although that result, *per se*, is not shocking, it is at least reassuring that that is the case. Incidence of numerous citations in the *ABSEL Proceedings* of the *Guide to Business Gaming and Experiential Learning* since 1991 is also significant when one realizes that the works in the *Guide to Business Gaming and Experiential Learning* were all written by scholars who are recognized ABSEL researchers.

Although we are all aware of the problems associated with attaching too much significance to averages, there are several averages that arose in the study that suggest positive aspects about the research being done by ABSELers. In Garfield's (1979) text he indicates, "The average scientific article contains approximately 15 citations." It is noteworthy that over the period of time from 1984 to 2006, the average citations per article in the *ABSEL Proceedings* have been between 12 and 13. Perhaps more significantly that number has trended upward over the years with citations per paper at 19.2 and 23.9, respectively, for the two most recent years. Although many of the articles in *Simulation & Gaming* cannot be attributed to ABSELers, the average citations per paper that was found in this study, 29.9, would certainly seem credible in comparison to the number, 15, reported by Garfield.

It seems that the nettlesome practice by some authors of indicating that references will be provided on request peaked in 1997-1998 with 11 papers so designated in both 1997 and 1998, and recently has fallen out of favor. Since 2001, none of the published papers in the *ABSEL Proceedings* indicated that references would be provided on request. By way of comparison, in the period of time from 1996 to 2005, for which the citation analysis was performed for *Simulation & Gaming*, none of the papers specified that references would be provided on request. It is the author's editorial opinion that works that do not use the on request are likely to be of higher quality, so the recent trend in the *ABSEL Proceedings* is probably commendable.

To the extent that citations in published papers has any direct connection with the scholarly journals that researchers regularly consult, there may be some interesting implications for those interested in promoting ABSEL membership. To gingerly advance an argument that may be slightly tenuous, it would seem that ABSELers read the *ABSEL Proceedings*, *Simulation & Gaming*, the *Guide to Business Gaming and Experiential Learning*, as well as a whole host of "management journals." Additionally, recently the *Journal of Management Education* seems to have become significant resource for ABSELers. So, if ABSEL is attempting to reach out to attract new members, it might use these scholarly works as the medium.

To close, it would appear that the citation analysis from this study indicates a number of very positive features in terms of the research being published by ABSELers.

## Developments in Business Simulation and Experiential Learning, Volume 34, 2007

### REFERENCES

- Anderson, Philip H. and Leigh Lawton (1997). "Demonstrating the Learning Effectiveness of Simulations: Where We are and Where We Need to Go." *Developments In Business Simulation & Experiential Learning*, 24, 68-73. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Bloom, Benjamin S. (1956). *Taxonomy of Education Objectives: The Classification of Education Goals Handbook I: Cognitive Domain*, David McKay Company, Inc. New York, NY.
- Butler, Jr., John K. (1999). "ABSEL's Contributions to Experiential in the 90s." *Developments In Business Simulation & Experiential Learning*, 26, 1. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Butler, Richard J., Peter M. Markulis, and Daniel R. Strang (1985). "Learning Theory and Research Design: How Has ABSEL Fared?" *Developments In Business Simulation & Experiential Exercises*, 12, 86-90. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Campbell, Donald T. and Julian C. Stanley (1963). *Experimental and Quasi-Experimental Designs for Research*, Rand McNally & Company, Chicago, Ill.
- Faria, A.J. (2000). "The Changing Nature of Simulation Research: A Brief ABSEL History." *Developments In Business Simulation & Experiential Learning*, 27, 84-90. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Faria, A.J. (2001). "The Changing Nature of Simulation Research: A Brief." *Simulation & Gaming: An Interdisciplinary Journal of Theory, Practice, and Research*, 32, 1, 97-110.
- Faria, A.J. and Joseph Wolfe (1999). "ABSEL's Historical Research Interests." *Developments In Business Simulation & Experiential Learning*, 26, 1. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Garfield, Eugene (1979). *Citation Indexing: Its Theory and Application in Science, Technology and Humanities*, John Wiley & Sons, NY, NY.
- Goosen, Kenneth R. (1986). "An Analysis of ABSEL Conference Papers." *Developments In Business Simulation & Experiential Learning*, 13, 97-101. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Gosen, Jerry and John Washbush (2004). "A Review of Scholarship on Assessing Experiential Learning Effectiveness." *Simulation & Gaming: An Interdisciplinary Journal of Theory, Practice, and Research*, 35, 2, 270-293.
- Graf, Lee A. (1999). "ABSEL's Contributions to Experiential Learning/Experiential Exercises: The Decade of the 1970s." *Developments In Business Simulation & Experiential Learning*, 26, 1. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Gentry, James (ed.) (1991). *Guide to Business Gaming and Experiential Learning*, Nichols/GP Publishing, East Brunswick.
- Howard, Barbara, Peter M. Markulis, Daniel R. Strang and Joshua Wixom (2006). "Simulations and Experiential Exercises – Do They Result in Learning? Have We Figured It Out Yet?" *Developments In Business Simulation & Experiential Learning*, 33, 100-106. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Howard, Barbara and Daniel R. Strang (2001). "ABSEL: The Way We Talk!" *Developments In Business Simulation & Experiential Learning*, 28, 111-116. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Howard, Barbara and Daniel R. Strang (2003). "ABSEL: The Way We Talk! Take II." *Developments In Business Simulation & Experiential Learning*, 30, 133-145. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Kelley, Lane & William D. Brice (1999). "The Contributions of ABSEL during the 1980s." *Developments In Business Simulation & Experiential Learning*, 26, 1. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Keys, Bernard (1977). "Review of Learning Research in Business Gaming." *New Horizons in Simulation Games and Experiential Learning*, 3, 173-184. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Krippendorff, K. (1980). "Content Analysis: An Introduction to Its Methodology." Beverly Hills: Sage.
- Markulis, Peter M., Phillip Ricci and Daniel R. Strang (1991). "A Critical Review and Assessment of ABSEL's Award-Winning Procedures and Protocols." *Developments In Business Simulation & Experiential Learning*, 18, 61-65. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Markulis, Peter M., Phillip Ricci and Daniel R. Strang (1989). "A Review of Salient Trends in Proceedings' Characteristics: A Fifteen Year Profile of ABSEL." *Developments In Business Simulation & Experiential Learning*, 16, 200-203. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Patz, Alan L., J. Bernard Keys and Hugh M. Cannon (1999). "Back from the Future: An ABSEL 'Merlin' Exercise for the Year 2005." *Developments In Business Simulation & Experiential Learning*, 26, 1. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Peach, E. Brian and Richard G. Platt (2002). "The ABSEL Research Heritage and the BKL: Leveraging Their Value for Future Research." *Developments In Business Simulation & Experiential Learning*, 29, 260-264. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Wolfe, Joseph (1981). "Research on the Learning Effectiveness of Business Simulation Games—A Review of the State of Science." *Developments In Business Simulation & Experiential Learning*, 8, 72. Reprinted in *The Bernie Keys Library*, 7<sup>th</sup> edition.
- Wolfe, Joseph and David Crookall (1998). "Developing a Scientific Knowledge of Simulation/Gaming." *Simulation & Gaming: An Interdisciplinary Journal of Theory, Practice, and Research*, 29, 1, 7-19.