

**New Horizons in Simulation Games and Experiential Learning, Volume 4, 1977**  
AN ANALYSIS OF ABSEL: ITS PAST ACHIEVEMENTS AND FUTURE PROSPECTS

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This year begins ABSEL's fourth year of existence. Consequently, sufficient time has passed to permit an evaluation of its achievements and failures. There is evidence that business simulation usage in collegiate education today has fallen far short of original expectations. Hence, ABSEL's founding came at a time when progress in business simulation usage needed assistance. Therefore, a basic purpose of this paper is to place in some perspective a role for ABSEL in the future development and use of business simulations. However, an understanding of ABSEL's future role cannot be considered apart from an awareness of the history of business simulation development. Thus, the first part of this paper will be concerned with reviewing some of the major developments of simulation usage in the past twenty years.

**BUSINESS SIMULATION USAGE: THE LAST TWENTY YEARS**

In 1956, the American Management Association developed a business simulation for executive training purposes, and the announcement of the completed project in the same year stimulated a number of business schools to investigate the potential of business simulations as a pedagogical tool. The idea of using business games as an instrument of educating business students was apparently conceived as early as 1954; however, the increased interest in business games undoubtedly was influenced by IBM's producing and leasing its first commercial computer in 1955. Now after twenty years of use, business simulations can no longer be considered as merely an innovative and promising teaching technique of the future. The period of trial usage has ended, and the period of critical evaluation has arrived.

The first use of business simulations in collegiate education began in 1956. Dale and Klasson's 1964 report was based on a 1962 survey which disclosed that in 1956 two schools had begun using business simulations. The report by Dale and Klasson also revealed that 49 business schools were using business simulations by the end of 1960. Thus, in a three-year period business simulation usage skyrocketed.

Further evidence of the intensive interest in business games during the 1957-60 period was provided by Belch. Her 1974 comprehensive listing of simulation references contained 137 business simulation references with 1960 or earlier dates. This flurry of writing can be appreciated best by noting that Belch's bibliography contained only two business simulation references prior to 1958.

The over-all interest in business simulation as an academic subject reached an all-time peak in 1960. Fifty-eight references were listed as having been written in 1960. Further evidence of the intense interest in the possibilities of business simulations during the first years was manifested in the three national symposiums which were held in 1957-1960.

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The Dale and Klasson 1964 report gave the first clear view of the scope of business simulation usage in collegiate education. Their report based on a survey of 107 AACSB accredited schools of business revealed that 64 schools out of 90 responding schools were using business simulations in a total of 76 different courses. Regarding the number and type of business games used, Dale and Klasson reported that a total of 55 games had been used: 25 were computerized, and 30 were noncomputerized. Of this number, 27 were functional games. During the period of 1957-1962 33 schools developed their own games. The games most often used were Management Decision-Making Laboratory and UCLA Executive Game, each with 24 users.

Further evidence of the over-all high interest in business simulations during the 1957-1962 period was presented in Belch's Contemporary Games, Vol. II (1974). References were listed for 209 articles and works on business simulation usage with 1962 or earlier dates. Although users and proponents of business simulations in the early sixties were not without their critics, it did appear that eventually business simulation usage might emerge as a significant and widely-used teaching method.

As late as 1969 no serious effort had been made to document the quantity of business simulation literature and games; however, a large body of literature had been written, and several hundred games had been developed. In 1969 the ANA published Graham and Gray's Business Game Handbook. This book was the first major effort to consolidate the ideas and experiences resulting from ten years of business simulation endeavors. The book, which was a combination readings and business simulation directory, provided brief descriptions to some 183 business games. Of these games, 50 were classified by the authors as general in purpose; 80 were termed functional or special purpose; and 53 were considered industrial in nature.

Thus, it is apparent that from 1962 to 1967 the number of schools using and developing business games continued to increase. Graham and Gray's Business Game Handbook was in part based on a survey of 125 business schools conducted in 1967. In the handbook, the authors stated that 84 of 92 responding schools used business games in one or more courses. 91 percent of the responding schools reported using business games as compared to 71 percent of the responding schools in the 1962 Dale and Klasson study. Although game usage had increased from 1962 to 1967, the increase was at a decreasing rate.

For the period 1957-67 Belch listed a total of 337 references. From 1963-1967, the annual number of articles and works on business simulation substantially declined. The yearly average number of business references during this period was 23 as compared to an average of 35 for 1957-1962.

Another truly important directory of simulations was published in 1973. In this directory the authors, Zuckerman and Horn, included a significant section on business games. Of the 154 games which appeared in this directory, 39 were classified as general in nature; 49 were termed industrial; 61 were considered functional by the authors; and 15 dealt with the field of economics.

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Of the 154 games listed by Zuckerman and Horn, 114 were copyrighted between 1965 and 1970. These games accounted for 85 percent of all business games listed by Zuckerman and Horn. While the interest in business simulations as an academic topic had decreased, the interest in developing games during the 1965-1970 period had greatly accelerated.

It is significant to note that during this same period of time the majority of games being developed were of a functional nature. Of the 114 games developed in the 1965-70 period, all but 23 were functional or industry games.

In 1972 a second directory of simulations appeared, Contemporary Games, Vol. I. This directory, authored by Jean Belch, also contained a significant section on business simulations. The 242 games listed were classified by Belch as follows:

General	114	Production	14	Inventory	4
Advertising	4	Personnel	14	Industrial Relations	6
Accounting	2	Sales	11	Management	49
Banking & finance	10			Marketing	13

This listing of games by Belch, as did the listing of games by Zuckerman and Horn, clearly showed that games were being used in all functional areas of business.

In 1974 Contemporary Games, Vol. II was published. This book, also by Belch, consisted largely of references to articles and works on simulations, including references to virtually all of the important writings about business simulations. This work contained 494 references to articles and books on business simulations. For research purposes, this work is undoubtedly one of the most valuable available. It is the only work that presently documents in one volume the progress in business simulation usage from 1957 through 1973. A tabulation of the number of references in this book by year of publication is presented below:

1956-- 1	1959--36	1962--31	1965--27	1968--28	1971-- 33
1957--15	1960--58	1963--27	1966--32	1969--28	1972--18
1958--26	1961--41	1964--20	1967--22	1970--31	1973-- 3

The most surprising aspect of this table is that only three references for the year 1973 were given by Belch. The downward trend in business simulation interest is quite evident. The bibliography appearing in Graham and Gray's Business Game Handbook shows a similar decline in number of articles and works. This graph suggests that in 1973 the growth and development of business simulations apparently had come to a near standstill. It seems little could be said that had not previously been said. It is quite significant that in the next year, 1974, ABSEL was founded. By the end of 1973 a catalyst for research and development of business simulations was needed. The question is: Has ABSEL provided this stimulus?

Although it appears certain that business simulations will be used for sometime in the foreseeable future, the question remaining to be answered is: How significant has the use of business simulations become in the total context of business administration education?

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Unfortunately, for those of us who are dedicated users of business simulations, the answer is not very encouraging. The fact is that after 20 years business simulations as a pedagogical tool cannot be considered important in terms of the total number of schools and teachers using business simulations.

The fact that business simulations appear to play a role of minor importance in today's collegiate business education can be shown by utilizing data from Roberts and Strauss's 1974 survey of business simulation usage. This study revealed that 95 percent of the responding schools used simulations in one or more business courses and that simulations were used in a total of 103 courses. These statistics on the surface appear very encouraging, and one might be led to conclude that in terms of all business schools simulation usage is only 5 percent away from universal acceptance. It would be highly erroneous to accept this conclusion, even if it were true that 95 percent of all business schools are using simulations in at least one course. The importance of business simulation usage should not be thought of in terms of whether one or more simulation is being used in each school but rather in terms of the relationship that simulation-using courses bear to all business courses taught. When simulation usage is looked upon in this light, a more valid perspective of the incidence of simulation usage may be seen. The truth is that from this viewpoint business simulations are being used by a relatively small number of business courses.

In their 1974 survey Roberts and Strauss presented the following data on the number of courses in which one or more simulations were used in the 73 schools responding to their questionnaire.

Subject Areas	Date of Studies	
	1974	1962*
Accounting	3	5
Business policy	26	21
Finance	11	1
Management	23	20
Marketing	13	17
Miscellaneous	27	12
Totals	103	76

\*Obtained from the 1962 study conducted by Dale and Klasson in 1964.

Note: Roberts and Strauss used the same questionnaire as Dale and Klasson in 1962. The schools surveyed by Roberts and Strauss were the 90 schools responding to the Dale and Klasson survey.

The correct way to evaluate the above data is to relate the number of simulation-using courses in each subject area to the total number of courses taught in that subject area. When examined from this perspective one can immediately see that relative to the total number of courses offered in the 73 responding schools, the 103 courses in which simulations were used are relatively minor in significance. For example, regarding business policy courses, the 73 responding schools reported that simulations were used in 26 business policy courses. This means that about one-third of the schools were using business games in the course in which

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business games should have the most value. For other subject areas, as the above data shows, the percentage of courses using business simulations is much lower, e.g., marketing--19 percent and finance--15 percent.

An even more negative evaluation results when the number of simulation-oriented courses is compared to the total course offerings of the responding schools. For example, if we assume that the responding schools offered no more than a total of 50 courses per school (a conservative assumption) then, at a minimum, the total business offerings for the 73 respondents would be 3,650. The Roberts and Strauss study disclosed that for all schools only 103 courses used one or more business simulations. Given the conservative estimate of total business offerings above, then a conservative conclusion would be that business simulations are used in less than 3 percent ( $103/3,650$ ) of all business administration courses.

An inference of the Roberts and Strauss study is that 95 percent of all business schools used simulations in at least one course. However, it is probably incorrect to extend the results of the Roberts and Strauss study to all schools of business administration. The 90 schools in their survey were all schools accredited by the AACSB. Evidence from ABSEL's membership records suggests that in the nonaccredited AACSB schools the use of business simulation is much less. At the present time ABSEL's members represent some 128 U.S. colleges and universities. Of this number 65 are accredited, 41 are nonaccredited assembly members, and 22 represent colleges not affiliated with the AACSB. However, the number of nonaccredited schools greatly outnumbers the accredited AACSB members. The 1976-77 AACSB directory shows 324 nonaccredited assembly members and 172 accredited undergraduate members. Nonaccredited AACSB schools outnumber the accredited AACSB schools by a ratio of almost 2 to 1; in ABSEL these nonaccredited schools are outnumbered by a ratio of 1.6 to 1. From this it may be concluded that probably no more than one-third of the nonaccredited AACSB schools use one or more business simulations. If this be the case, then for all schools taken as a whole, simulations are used in less than 1 percent of all business courses taught.

Another way to emphasize the minor importance of business simulation usage is to look at the number of students who participate annually in business games. The study by Roberts and Strauss indicated that the responding schools on the average used simulations in 1.4 courses. Given that there are some 500 schools of business administration in the United States, and assuming class sizes of 30 students, the number who participate each year in business simulations can be estimated to range from 30,000 to 50,000 depending on the number of course sections assumed to be offered each year. The 1976-77 AACSB directory of assembly members states that there are some 584,000 students pursuing undergraduate degrees in business. Thus, in any given year no more than 9 percent ( $50,000/584,000$ ) of undergraduate students take courses in which business simulations are used. However, since students normally are in college for four years, the possibility exists, assuming that each student takes no more than one simulation-oriented course, that 36 percent of all business students will eventually participate in at least one business simulation before graduating.

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However, a student will normally take at least 24 business courses in a four-year business degree program. When the fact is confronted that about one-third of all business students will take only one course out of 24 in which a business simulation is used, then it must be concluded that the use of business simulations has made only a small dent at the present time in collegiate business education pedagogy.

The intent of this paper has not been to deliberately paint a pessimistic picture of business simulation usage. At this particular time in the history of ABSEL, it is important to realize that simulation usage is not as large as one might have supposed. There is much work ahead if business simulations are to be recognized eventually as significant pedagogical methods for business education. ABSEL is in a strategic position to greatly influence the future of business simulation usage.

### **ABSEL: AN EVALUATION OF ITS LAST THREE YEARS**

ABSEL's founding then came at a very critical time in the history of business simulation usage. The accumulation of achievements and failures of the last 20 years of business simulation usage has now come into the hands of ABSEL members. Future advancement in business simulation usage is not likely to be made by individuals acting alone. If business simulation pedagogy is as important as we believe and if greater use of simulations should be made, then it appears that the collective efforts of an organization such as ABSEL are required. Because of the crucial importance of ABSEL, an evaluation of ABSEL's efforts for the past three years is now appropriate.

The ability of ABSEL to influence the future of business simulation usage will depend, in part, on the size of its membership. In its three years of existence, 250 individuals have joined ABSEL. These individuals represent 30 states, 7 foreign countries, 11 businesses, and 141 colleges and universities. However, at this date ABSEL's active membership is more accurately stated as approximately 140, as some 100 members have elected not to rejoin. In terms of academic disciplines the membership is constituted as follows: management, 70 percent; marketing, 14 percent; accounting and finance, 9 percent; and others, 7 percent. Given the current growth rate, ABSEL's membership in the next five years is not likely to exceed 200.

The relative size of ABSEL's current membership should be evaluated in terms of the total number of users of business simulations. No studies have been made to ascertain the number of business simulation users in the United States; however, existing ABSEL membership records in conjunction with some AACSB data make possible a reasonable estimate. Analysis of ABSEL's membership records shows that in terms of the schools represented in ABSEL, an average of 1.6 individuals from each school have joined ABSEL. Given that there are approximately 500 schools of business administration in the AACSB, then this suggests that the number of business simulation users may approximate 800. However, this estimate may be somewhat high as it is based on the assumption that in each of the 500 assembly schools there is at least one user of business simulations. Consequently, the number of teachers who use business simulations might be as low as 500. According to recent AACSB

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statistics there are approximately 18,500 teachers in assembly schools. Therefore, using the larger estimate above, the number of simulation-oriented teachers probably does not exceed 4 percent and may be as low as 2.5 percent.

Assuming the number of simulation users to be around 800, then only about 25 percent of this number have identified with ABSEL. Also, at the current time only 1/3 (65) of accredited schools have representation in ABSEL. Since ABSEL has been in existence for three years now, there appears to be a major problem in that one would expect the leading schools to have at least one member of their respective faculties represented in ABSEL.

Several reasons may be given as to why greater representation does not exist:

1. ABSEL's existence is not known by the majority of business schools.
2. ABSEL is known but the benefits from joining are not sufficient to attract better representation.
3. In the majority of schools, simulations are used but their use is not considered important enough for faculty to devote any time to an organization such as ABSEL.

Regardless of the reason, it is clear that greater effort should be expended to (1) promote the existence of ABSEL to current users of business simulations, and (2) provide additional activities and services so that there are concrete benefits for all who join ABSEL.

ABSEL's only function to date has been to hold an annual conference; therefore, an evaluation of its activities can be made only in terms of the three annual conferences held since its founding. The following is a brief summary of the past three conferences:

	1974	1975	1976
Number of papers presented	52	47	40
Number of authors	65	70	40
Number of papers published	47	43	--
Number of authors at conference	52	53	38

A total of 137 papers have been presented in three years by 105 different authors. In addition to the three conferences held, ABSEL has sponsored two sections in association with NASAGA. These two business sections produced a total of 47 papers. Thus, in three years ABSEL members have presented 184 papers.

Although many of the papers were no more than descriptions of how the authors were using a specific simulation, and even though many did not measure up to accepted standards of academic writing, nevertheless, some excellent papers were presented that reported results on significant experiments involving business simulations. These papers, regardless of their quality or long-run impact, served a useful purpose in that a significant number of individuals were stimulated to think about business simulations as a subject worthy of research and experimentation. Business simulation writing was brought out of the 1973 doldrums.

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Hence, the major achievement of ABSEL is this: research and writing about business simulations has been revitalized. If ABSEL adopts a program to give itself greater exposure and develops a set of activities that will provide significant benefits for all of its members, then there is still hope that in the future the use of business simulations might reach the status of importance visualized in the early years of business simulation development.

### SUMMARY

The founding of ABSEL in 1974 came at a time when interest in writing about business simulations as an academic topic had virtually ceased. In terms of the total courses taught by schools of business administration business simulation usage cannot be considered as very important. Probably less than 2 percent of all business courses involve the use of a business simulation. The number of students who annually participate in business simulations is less than 10 percent of all business students. The number of teachers who use business simulations probably does not exceed 800, which number represents about 4 percent of all business teachers. If ABSEL is to reach its potential, then greater effort to promote its activities and to provide membership benefits will have to be made. The major achievement of ABSEL is that it has renewed interest in business simulations as the basis of research and academic writing.

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