

Developments in Business Simulation & Experiential Exercises, Volume 13, 1986

AN ANALYSIS OF ABSEL CONFERENCE PAPERS (1974-1985)

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ABSTRACT

This paper analyzes and classifies the nearly 700 ABSEL papers presented since the founding of ABSEL in 1974. Based on the analysis some recommendations are made for possible action by ABSEL in planning future meetings and research activities.

INTRODUCTION

Since its founding in 1974, ABSEL members have presented approximately 700 papers and these are contained in 12 ABSEL Conference Proceedings and two NASAGA Conference Proceedings. Both sets of proceedings represent at the present time an unorganized body of knowledge about simulation and experiential exercise theory and practice. In total the papers represent the most original and authoritative literature pertaining to experiential learning in collegiate business schools.

A total of 697 papers have been reviewed and categorized in the analysis presented here. For the most part, these papers represent the results of independently pursued research and analytical thinking as funded or directed-team research to this date has not been attempted by ABSEL.

A number of papers pertaining to business simulation research and practice have appeared in *Simulation & Games*. Since 1974 approximately 40 papers have been published in this journal and the vast majority of them were written by ABSEL members. These papers, for the most part, were presented at ABSEL Conference as working papers. For this reason simulation papers appearing in *Simulation & Games* are not included in this study.

The time for a directed-team approach to simulation research may be present. The individualistic, piecemeal approach of the past 12 years, if continued, would most likely result in a duplication of past efforts. Perhaps serious attention should be given to the research plan proposed by Whatley and Hoffman (3) at the 1984 ABSEL Conference. A team effort approach along the lines suggested by them should be based on a thorough analysis and understanding of all research efforts reported in our Conference as well as other business journals. This paper has as its major purpose the categorization of past ABSEL Conference papers in order to identify the nature and scope of 12 years of research and analytical thinking about the two pedagogical tools which ABSEL was formed to promote--business simulations and experiential exercises.

An analytical classification model developed by the author in 1980 was used to facilitate the analysis (the Bloom taxonomic model used by Butler, Markulis and Strang (1) was not employed because his hierarchy of learning prevented determining the number of papers presented by topical and functional area).

GENERAL ANALYSIS OF BUSINESS SIMULATION AND EXPERIENTIAL EXERCISE PAPERS

A graphical tabulation of ABSEL papers by years has been presented in Figure 1. The number of total papers in various categories has fluctuated from year to year. A careful examination of the year-to-year variation from 1974 to 1985 permits several significant observations. An overall analysis indicates no sustained growth in the number of business simulation and experiential exercise papers published. Immediately following the founding date in 1974, ABSEL experienced a sharp decline in the number of total papers presented. Then beginning in 1977 a steady growth in total papers occurred followed by a period of decline starting in 1980.

An examination of the total number of experiential exercise papers in Figure 1 indicates that a period of intense interest and growth developed for these types of papers from 1974 through 1980. In fact, in the years 1978 and 1980, experiential exercise papers outnumbered business simulation papers. For reasons that perhaps need explaining, however, a sharp reversal in interest occurred beginning in 1981. Since that year the number of experiential exercise papers has declined dramatically such that in 1985 only 10 such papers were presented. If the current rate of decline continues experiential exercise papers will have only token representation at ABSEL Conferences.

Beginning in 1982 a small but significant change in the types of papers presented began to develop. For the year 1982 and the following years, approximately 10 papers each year have been presented involving pedagogical methodologies or instructional matters containing no direct relevance to business simulation or experiential exercises. For example, several papers have been presented on student evaluations and general instructional methodologies. These types of papers evoke the question: "How encompassing is the term 'experiential learning?'" Without these papers, which now represent about 15.0% of all papers, ABSEL Conferences in the past four years would have been substantially smaller. These papers have offset and somewhat disguised the absolute decrease in simulation and experiential exercise papers. The fact that these papers are offsetting a general decline in mainline business simulation and experiential exercise papers suggests the following question: "Can ABSEL continue to be a viable organization based on only two pedagogical methodologies -- business simulation and experiential exercises?" If present trends remain unchecked, then experiential exercise papers will have disappeared in a few years and business simulation papers will vary in the nominal range of 15-25 papers a year. Unless a reversal in present trends is soon experienced, ABSEL program chairman may have to accept an even higher percentage of such papers.

In 1977 the ABSEL Board of Directors voted to have a case track in the Annual Conference. In 1978, 8 papers dealing with cases were presented. Since that year, however, only 14 papers in total dealing with cases have been presented. At the present time it is clear that ABSEL is not perceived as an appropriate forum for presenting case-oriented papers.

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FIGURE 1

GRAPHICAL ANALYSIS OF ABSEL CONFERENCE PAPERS (1974-1985)

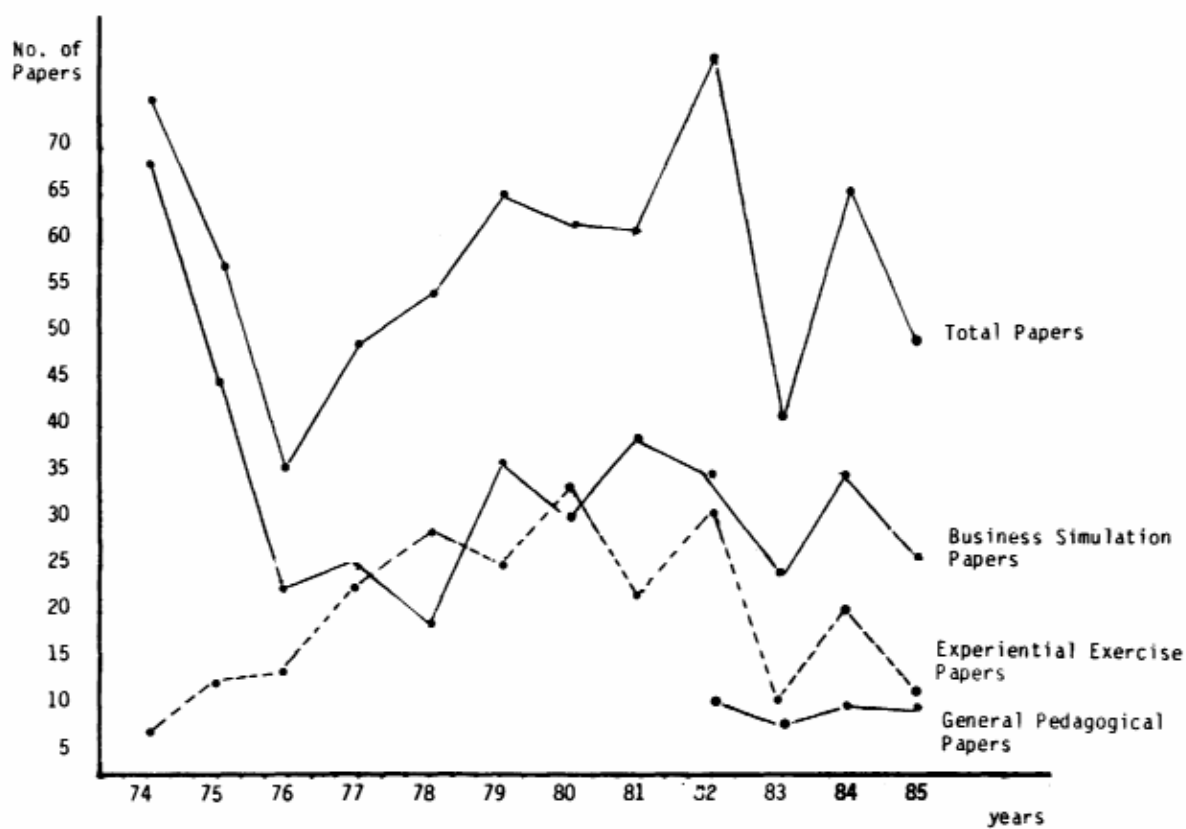


FIGURE 2

CLASSIFICATION OF ABSEL SIMULATION CONFERENCE PAPERS (1974-1985)

BUSINESS SIMULATION PAPERS

| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | Total | % |
|---|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| I. Design and construction of B. S. | 5 | 2 | 1 | - | - | 4 | 3 | 2 | 1 | 2 | 4 | 3 | 27 | 6.5 |
| II. Simulation Administration Cycle | | | | | | | | | | | | | | |
| A. Computer implementation | 4 | 2 | 1 | 1 | - | 1 | - | 5 | 5 | - | - | 2 | 21 | |
| B. Course design and learning objectives | 4 | 2 | 2 | - | - | 2 | - | 2 | 3 | 1 | 1 | 1 | 18 | |
| C. Techniques and procedures of admin. | 5 | 2 | - | 3 | 2 | 2 | 5 | 5 | 3 | 1 | 2 | 1 | 31 | |
| D. Processing of decisions | 2 | 1 | - | - | 1 | - | - | 1 | - | - | - | 1 | 6 | |
| E. Simulation playing by students | - | - | - | - | - | - | - | - | - | 1 | - | - | 1 | |
| F. Evaluation of Performance | - | 3 | 5 | - | - | 2 | - | 1 | - | - | - | 1 | 12 | |
| | 15 | 10 | 8 | 4 | 3 | 7 | 5 | 14 | 11 | 3 | 3 | 6 | 89 | 22.5 |
| III. Development of Bus. Sim. Learning Theory | | | | | | | | | | | | | | |
| A. Nonempirical research and analysis | 2 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 4 | 2 | 1 | 27 | |
| B. Empirical | 14 | 14 | 4 | 6 | 10 | 13 | 9 | 12 | 10 | 8 | 12 | 10 | 122 | |
| | 16 | 18 | 7 | 8 | 12 | 15 | 11 | 14 | 11 | 12 | 14 | 11 | 149 | 37.5 |
| IV. Innovative uses of business simulations | - | 2 | 2 | - | - | - | - | - | - | - | - | - | 4 | 1.0 |
| V. Descriptive Uses of business simulation | 17 | 11 | 4 | 10 | 3 | 8 | 9 | 5 | 11 | 7 | 6 | 4 | 95 | 23.0 |
| VI. Descriptive uses of nonbusiness simulations | 2 | 1 | 1 | 1 | - | - | - | 1 | - | - | - | - | 6 | 1.5 |
| VII. General and miscellaneous Aspects | 12 | 1 | - | 3 | 1 | 2 | 3 | 2 | 1 | - | 8 | 2 | 35 | 9.0 |
| | 67 | 45 | 23 | 26 | 19 | 36 | 31 | 38 | 35 | 24 | 35 | 26 | 405 | 100.0 |
| | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---- | ---- |

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ANALYSIS OF BUSINESS SIMULATION PAPERS

Figure 2 presents a separate tabulation of business simulation papers. The category containing the highest percentage of papers is Category III, Development of Business Simulation Learning Theory. The 149 papers in this category represent 37.5% of the total number of papers presented. This finding is good news in that it shows that ABSEL members have a strong interest in research. The 149 papers in Category III represent a body of research writing that needs to be analyzed and summarized before a future ABSEL research strategy can be mapped out.

As simulation administrators well know, business simulations present many implementation problems. Eighty-nine papers have been presented dealing directly with game administration. For individuals planning to use simulations (or for experienced users looking for new ideas) these papers contain a wealth of helpful hints for game enrichment or for more efficient ways to administer a particular simulation. An area considered by some to be very important in maximizing learning from simulation play or experiential exercise participation is the debriefing or performance evaluation session(s) held at the conclusion of game play. As Category II-F in Figure 2 shows, this area has received only scant attention in ABSEL papers.

The business simulation category receiving the second largest amount of attention is Category V, Descriptive Uses of Business Simulation. The fact that descriptive-type papers are relatively easy to write probably accounts for the high percentage of this category. Many of the papers in this category have been poorly written and others which are satisfactorily written at best serve only short-run usefulness. These types of papers may encourage or discourage the adoption of a particular simulation or mode of administration. A question that should be examined is: "Should these types of papers be encouraged or discouraged at future ABSEL Conferences?" If desirable, should guidelines be established to improve the quality and information content of these papers?

In the design of the classification model used in this paper, the author originally believed that papers indicating an innovative use of simulations should be recognized as a separate category. Although many papers contained novel ideas, the category should probably be removed as standards for identifying innovative uses of simulation papers proved to be elusive.

Item II-E, Simulation Playing By Students, was established for papers which described the activities, techniques and procedures used by students to actually make decisions. Apparently, the observation of students actually engaged in the decision making process was either too difficult to accomplish or of no interest to researchers. Only one paper was placed in this category. The critical incident approach for measuring student learning in simulation play advocated by Keys in ABSEL's early years has not taken place.

ANALYSIS OF EXPERIENTIAL EXERCISE PAPERS

A separate analysis of experiential exercise papers appears in Figure 3. Of the 233 papers presented in this major category, 44.0% have been descriptive in nature. Approximately one-third of the papers were devoted to Category III, the Development of Experiential Exercise Theory. Of the 76 papers in this category, 63 were empirical research papers, the majority of the 63 empirically-based papers were presented between 1977 and 1982. However, as

Figure 1 has clearly shown, the interest in experiential research and writing has decreased sharply in the last four years. Between 1982 and 1985 only eight empirical research papers were presented; in fact, in 1983 no experiential exercise research papers were presented.

Perhaps a partial explanation for the sudden decrease in the number of experiential exercise papers can be found by examining Category II of Figure 3. Only a small percentage (11.6%) of the total experiential papers explicitly dealt with the problem of exercise administration. The implementation of experiential exercises in the classroom requires considerable time and effort. Also, these exercises involve special problems. The logistics of managing experiential exercises may be a major factor in the decreased interest in experiential exercises. Perhaps more future papers should be written on how to effectively use and evaluate experiential exercises.

The experiential exercise papers now being presented are primarily descriptive in nature. The question asked about descriptive business simulation papers should also be applied to experiential exercise papers. That is: "Should these types of papers be encouraged or discouraged at future ABSEL Conferences?"

ANALYSIS OF ABSEL RESEARCH

Figure 4 contains an analysis of the 182 papers classified as empirical research. These papers represent 27.0% of all papers presented. Although several ABSEL members have criticized much of ABSEL's research for not measuring up to minimal research standards (1; 2; 3; 4), these papers on the whole, in the author's opinion, represent a record of accomplishment for ABSEL. Amongst the many poor to fair papers are a number of excellent research papers that contribute to an understanding of the learning potential of simulations and experiential exercises. The number of good papers in this group represent a solid basis for future research. Before future research can begin in earnest, however, it will be necessary to sort and sift through these papers to catalog and reference the knowledge and data that resides there.

The category of research identified in Figure 4 showing the greatest amount of research effort is item B, Measurement of Other Effects (e.g., motivation, satisfaction, etc.). In this category 47 papers representing 39.2% of all simulation-oriented empirical research can be found. A significant number of papers (19.0%) as revealed in item D have explored the effect of changing the mode of simulation play.

In 1983 a number of papers took a different research direction. These papers tended to treat business simulations as instruments of research rather than being the object of research. Business simulations were used as surrogates for the real business world. Real world problems and management theories were explored on the assumption that the behavior of students in simulations might be similar to the behavior of real world managers. This use of business simulations as substitutes for the business environment makes possible research which would be otherwise too costly to conduct.

Figure 4 shows that from 1977 through 1982 -here as considerable interest by ABSEL members to engage in research based on experiential exercise usage. However, in the last three years, only eight empirical research papers have been presented on experiential exercises. As presented earlier, the sudden lack of interest in experiential exercises, as a basis for research is somewhat mystifying.

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FIGURE 3

CLASSIFICATION OF ABSEL EXPERIENTIAL EXERCISE CONFERENCE PAPERS (1974-1985)

| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | Total | % |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|--------------|
| I. Design and construction of experiential exer. | - | - | - | - | - | 2 | 3 | - | 3 | 1 | - | - | 9 | 3.8 |
| II. Experiential Exercise Administration Cycle | | | | | | | | | | | | | | |
| A. Course design and learning objectives | - | - | 2 | 2 | 5 | 3 | - | 1 | 1 | - | - | - | 14 | |
| B. Techniques and procedures of admin. | - | - | - | - | 1 | 1 | 4 | 1 | 1 | - | - | - | 8 | |
| C. Evaluation of performance | - | - | - | - | 2 | 2 | 1 | - | - | - | - | - | 5 | |
| D. Participation by students | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | <u>-</u> | <u>-</u> | <u>2</u> | <u>2</u> | <u>8</u> | <u>6</u> | <u>5</u> | <u>2</u> | <u>2</u> | <u>-</u> | <u>-</u> | <u>-</u> | <u>27</u> | <u>11.6</u> |
| III. Development of experiential exer. theory | | | | | | | | | | | | | | |
| A. Nonempirical research & analysis | 4 | 1 | - | 1 | 2 | - | 1 | 1 | 2 | 1 | - | - | 13 | |
| B. Empirical | <u>4</u> | <u>3</u> | <u>4</u> | <u>10</u> | <u>5</u> | <u>8</u> | <u>9</u> | <u>7</u> | <u>9</u> | <u>-</u> | <u>5</u> | <u>3</u> | <u>63</u> | |
| | <u>4</u> | <u>4</u> | <u>4</u> | <u>11</u> | <u>7</u> | <u>8</u> | <u>10</u> | <u>8</u> | <u>11</u> | <u>1</u> | <u>5</u> | <u>3</u> | <u>76</u> | <u>32.6</u> |
| IV. Innovative uses of experiential exercises | - | 3 | 1 | 1 | 3 | 1 | 1 | - | 2 | - | - | - | 12 | 5.2 |
| V. Descriptive uses of experiential exercises | <u>3</u> | <u>5</u> | <u>6</u> | <u>8</u> | <u>11</u> | <u>8</u> | <u>13</u> | <u>9</u> | <u>12</u> | <u>8</u> | <u>14</u> | <u>6</u> | <u>103</u> | <u>44.2</u> |
| VI. General and miscellaneous aspects | - | - | - | - | - | - | - | 2 | 1 | - | 1 | 2 | 6 | 2.6 |
| | <u>7</u> | <u>12</u> | <u>13</u> | <u>22</u> | <u>29</u> | <u>25</u> | <u>32</u> | <u>21</u> | <u>31</u> | <u>10</u> | <u>20</u> | <u>11</u> | <u>233</u> | <u>100.0</u> |
| CASES | - | - | - | 1 | 7 | 4 | - | 3 | 3 | 1 | 1 | 2 | 22 | |
| OTHER PEDAGOGICAL TECHNIQUES | - | - | - | - | - | - | - | - | 10 | 7 | 10 | 10 | 37 | |
| TOTAL | <u>74</u> | <u>57</u> | <u>36</u> | <u>49</u> | <u>55</u> | <u>65</u> | <u>63</u> | <u>62</u> | <u>79</u> | <u>42</u> | <u>66</u> | <u>49</u> | <u>697</u> | |
| | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** |

FIGURE 4

CLASSIFICATION OF EMPIRICAL RESEARCH PAPERS PUBLISHED IN ABSEL CONFERENCE PROCEEDINGS (1974-1985)

| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | TOTAL | % |
|--|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|------------|--------------|
| A. Measurement of learning: real or perceived | 2 | 3 | 1 | 1 | 2 | 1 | 1 | - | 1 | - | 2 | - | 14 | 11.6 |
| B. Measurement of other effects (e.g., motivation, satisfaction, etc.) | 8 | 4 | 1 | 2 | 7 | 9 | 3 | 8 | 4 | - | 1 | - | 47 | 39.2 |
| C. Measurement of effect of changing mode of administration | 4 | 5 | 1 | 1 | 1 | 3 | 1 | - | 1 | - | 4 | 2 | 28 | 19.2 |
| D. Measurement of effect of simulation usage (other than learning) versus other teaching modes | 1 | 1 | 1 | - | - | - | 1 | 1 | 2 | 1 | 1 | 1 | 10 | 8.0 |
| E. Evaluation of effect of variations in group composition | 1 | - | - | 1 | - | - | 3 | 1 | 2 | 2 | 2 | 4 | 16 | 13.2 |
| F. Evaluation of users of simulations | 1 | - | - | 1 | - | - | 3 | 1 | 2 | 2 | 2 | 4 | 16 | 13.2 |
| G. Simulations as surrogates for business or business environment | <u>16</u> | <u>13</u> | <u>4</u> | <u>5</u> | <u>10</u> | <u>13</u> | <u>9</u> | <u>10</u> | <u>10</u> | <u>5</u> | <u>2</u> | <u>3</u> | <u>10</u> | <u>8.0</u> |
| | <u>16</u> | <u>13</u> | <u>4</u> | <u>5</u> | <u>10</u> | <u>13</u> | <u>9</u> | <u>10</u> | <u>10</u> | <u>8</u> | <u>12</u> | <u>10</u> | <u>120</u> | <u>100.0</u> |
| EXPERIENTIAL EXERCISE EMPIRICAL RESEARCH | | | | | | | | | | | | | | |
| A. Measurement of learning: real or perceived | 1 | 1 | - | 1 | - | - | - | - | - | - | - | - | 3 | 4.8 |
| B. Measurement of other effects of using experiential exercises | - | - | 2 | 8 | 5 | 5 | 4 | 6 | 9 | - | - | - | 39 | 63.0 |
| C. Measurement of effect of changing the mode of experiential exercise administration | - | - | - | - | - | 1 | 2 | 1 | - | - | 1 | - | 5 | 8.0 |
| D. Evaluation of effect of variations in group composition | - | 1 | - | 2 | - | - | 1 | - | - | - | 3 | 3 | 10 | 16.2 |
| E. Evaluation of users of experiential exercises | <u>1</u> | <u>2</u> | <u>1</u> | <u>1</u> | <u>5</u> | <u>6</u> | <u>9</u> | <u>7</u> | <u>9</u> | <u>-</u> | <u>1</u> | <u>3</u> | <u>5</u> | <u>8.0</u> |
| | <u>1</u> | <u>2</u> | <u>1</u> | <u>1</u> | <u>5</u> | <u>6</u> | <u>9</u> | <u>7</u> | <u>9</u> | <u>-</u> | <u>1</u> | <u>3</u> | <u>5</u> | <u>8.0</u> |
| TOTAL RESEARCH PAPERS | <u>17</u> | <u>15</u> | <u>7</u> | <u>17</u> | <u>15</u> | <u>19</u> | <u>18</u> | <u>17</u> | <u>19</u> | <u>8</u> | <u>17</u> | <u>13</u> | <u>182</u> | |
| | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** |

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RECOMMENDATIONS

Based on the above analysis and evaluation of ABSEL Conference Proceedings for the past 12 years, the following recommendations are made:

1. The 89 papers on business simulation administration should be sorted, filtered, and condensed into an ABSEL Handbook or Guide.
2. The 225 papers on theory and empirical research should be evaluated, classified, and summarized. As a result of this sorting and filtering process a summary of the papers making a substantial research contribution should be published or distributed in some manner. A standardized form for summarizing empirical type research should be developed.
3. A readings book based on the best ABSEL papers in various categories should be published by ABSEL.
4. The alarming decrease in the rate at which experiential exercise papers are being presented at ABSEL Conferences should be examined.
5. The question of whether ABSEL should explicitly promote pedagogical methodologies other than business simulations and experiential exercises should be examined.
6. The question of why a significant case track has not developed should be explored.
7. Consideration should be given to appointing a Director of ABSEL Research.

8. Major problems requiring serious research attention should be identified. Research in a given area should not be attempted unless the problem can be phrased in a form capable of being answered.

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