

TIBI News Time

The International Behaviorology Institute

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TNT-4 News: Editorial

More exciting things are happening on the organizational side of the development of the discipline of behaviorology. This editorial will introduce them while other articles and reports will provide more detail.

At the annual meeting of the TIBI Board of Directors, held on 18 July 1999, the decision was made to initiate a www presence before the end of the year. As a result of

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that decision, we began operating a community and course center on Blackboard.com in October. By November we activated portals to our Blackboard site through behaviorology.com and behaviorology.net as well as through behaviorology.org (our original domain name).

Our Blackboard.com site can be accessed through http://blackboard.com/courses/behaviorology/ even after the portals are activated. (Initially, use GUEST as USERNAME and PASSWORD.) Currently this site contains tools for our behaviorology community's electronic interactions as well as tools for the Institute's courses (beginning with a course about the literature of behaviorology's disciplinary origins). In time, all the courses for the Institute's certificates will be available electronically.

The next content that will be added includes an electronic version of all newsletter material (although the printed version will remain the legal, archived version for some time) along with some articles and other items of general interest.

^{*}Also member: Board of Directors

In the longer term, additional content will include regular academic behaviorology courses, with at least two courses added per year for the next five years. Among the first of the courses to be added will be *Introduction to Behaviorology II* (Beh. 101), *Introduction to Behaviorology II* (Beh. 102), *Behaviorologically Sound Child Care Practices* (Beh. 201), *Behaviorologically Preventing School Violence* (Beh. 401), and *Behaviorologically Preventing Academic Child Abuse* (Beh. 402). The first three of these courses constitute the required parts of the Institute's *Behavior Literacy Certificate*.

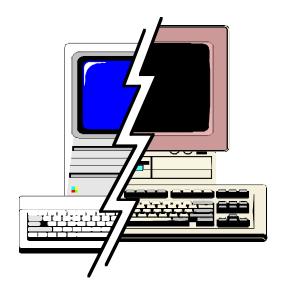
Any of the Institute's courses can be taken without tuition (and thus without faculty feedback and assessment) if all a student wants is the knowledge to be gained from taking a course. If a student wants faculty feedback and assessment, which might lead to acquiring Institute course credit (and perhaps ultimately one or another of the Institute's certificates), then the student can become a tuition paying student of the Institute. Or, a student can pay regular tuition to a regular institution of higher education, as part of an effort to earn regular academic credit for the desired courses, if those courses are offered at regular institutions of higher education; TIBI will indicate how to proceed with that option with each of its courses for which that option applies.

As part of your Institute's expansion into the electronic media, please verify your email address when you next send in your membership renewal. This will facilitate members contacting each other. And also please provide any and all suggestions that you have about what can and should go onto the web site, since it is there to serve your needs too, along with the educational needs of the public with respect to behaviorology.

At a subsequent meeting of the Board of Directors, held on 2 November 1999, the Board added another educator. We welcome Dr. John W. Eshleman to the Board, His contributions to the management of our students and curricula, especially through our web—based courses, will be very much appreciated.

Following an article with more details on our web presence is a data-based article by the Institute's first visiting scholar. This is followed by the Minutes of the Board of Directors meetings.

Following the reports of the Board of Directors meetings are the usual informational materials: the Treasurer's report, membership benefits, membership criteria and costs, application form, purposes, and information on *TNT* and TIBI (including how to make contact). Note that the first issue of the newsletter, which contains the Institute's by–laws—and these have not been changed—is still in print. Through it, the by–laws remain available to any who wish to peruse them. This notice fulfills the annual by–laws publication requirement. If you need a copy of the by–laws, contact TIBI.



Announcing Behaviorology. Anywhere

David R. Feeney

Fox School of Business & Management

The International Behaviorology Institute invites all members and visitors to stop by our new www portal and community. You can find these at behaviorology.anywhere:

- * www.behaviorology.com
- * www.behaviorology.net

The TIBI Web Portal gives the general public access to featured articles, contact information, and a site search engine as well as clickable entry into "Behaviorology Community," an online meeting and teaching and learning place open to guest visitors and TIBI members. Behaviorology Community also makes live chat rooms available now, along with live discussion forums, and a self–paced Literature of Behaviorology course, all via your home computer.

You will want to visit the site regularly: Future issues (as well as back issues) of the *TIBI News Time* newsletter will be available online. And all of TIBI's educational courses will also be offered through the site (fee free for those who do not need course credit but still want the knowledge). TIBI expects to add at least two new courses each year for at least the next five years, starting in 2000.

So TIBI members, go to behaviorology.anywhere and get your free, full membership in Behaviorology Community today. Go, and click on the Free Full Membership link. You will be asked for basic demographic information. Then you will have full access to all Behaviorology Community features!

Using Data to Measure Pedagogical Change Effectiveness

Ma Wen

TIBI & SUNY-CTC

Abstract: Verifiable student success can demonstrate the value of pedagogical change. This report provides such data for a particular pedagogical technique.

\$

Faculty often make changes in the pedagogical techniques they use to teach their courses. However, without data, they cannot state with confidence whether or not the changes were beneficial, nor whether or not the changes should be retained. Measures and methods are available, though, for collecting and evaluating data relevant to answering these questions.

During the 1998 calendar year, this author twice taught a course called "Introduction to Chinese History and Culture," once in the spring term and once in the fall term. In the fall term, one pedagogical change was introduced while everything else was kept the same. Data were collected to measure whether or not this change had any beneficial effect on student outcomes. Retention of the change depended on the presence of beneficial effects.

Method

The pedagogical change for the fall term involved requiring the students to write out a prepared answer for each of the study questions that were assigned as homework (the same questions as in the previous spring term). The completion of these answers was checked for all students and verified by recitation from students called on at random. Earlier, in the spring term, writing out the answers had been recommended, but had not been required, although the same recitation had been attempted.

The measure used to evaluate that change is called the percent of possible gain achieved (Ledoux, 1995). Fraley called it the attained percent of possible or desired gain, and described it fully along with several others (Fraley, 1980).

The percent of possible gain achieved is the ratio between a student's actual gain and the gain that was pos-

sible for that student in that term. Based on calculations with pre–test and post–test scores, the actual gain is computed by subtracting the pre–test score from the post–test score, while the possible gain is computed by subtracting the pre–test score from the maximum possible score. Then, the percent of possible gain achieved is computed by dividing the actual gain by the possible gain (i.e., the percent of possible gain achieved = [post–test score minus pre–test score] divided by [maximum possible score minus pre–test score]). The test used to obtain the pre–test and post–test scores was the same, being the "comprehensive final exam" composed for the course (in this case, an essay test).

To compare across terms, the percentage of students in each term reaching different levels (above or below 60%) of their possible gain was calculated. The cut-off was set at 60%, rather than the more common 50% (Ledoux, 1995), because this author wanted to judge effectiveness at a higher standard.

Results

Table I contains the data for the two classes in the spring and fall semesters respectively. As shown in that table, of spring term students, 25% achieved 60% or more of their possible gain, while 75% achieved below 60% of their possible gain. In comparison, of fall term students, 67% achieved 60% or more of their possible gain, while 33% achieved below 60% of their possible gain. Across terms, the percentage of students doing better increased.

Achieved ≥ 60% of Possible Gain	25%	67%
Achieved < 60% of Possible Gain	75%	33%
	Spring '98	Fall '98

Table 1: Percent of Students in Each Term Achieving ≥ 60% of Their Possible Gain, or Achieving < 60% of Their Possible Gain

Discussion

These results show that the small change of *requiring* students to write out answers to the study questions benefited the fall term students. Based on this, that change should be retained. While the small change evaluated here had a beneficial effect, there is always room for further pedagogical improvement. Additional changes can

be introduced and evaluated in the same way. If evaluation shows a further change to be effective, it should be retained. This kind of cycle encourages instructors to try new techniques, including combinations of techniques, while keeping those that prove to work.

Further, this behaviorological evaluation method is useful across courses, curricula, and campuses. This author will use this approach to evaluate other courses, whether taught in the USA or China (this author's home country*) and, upon returning to China, will share this approach with other colleagues there as well.

Conclusion

Any innovation is not just for innovation's sake or for the novelty effect. Each pedagogical change must be field-tested, supported by scientific data, and serve educational goals. Indeed, sound pedagogical innovations and educational changes can only be reliably established through scientifically verifiable quantitative methods like the one used in this study.

References

Fraley, L. E. (1980). The role of measures in the contingencies on teacher behavior. In L. E. Fraley. *Behavioral Analyses of Issues in Higher Education* (pp. 9–45). Reedsville, wv: Society for the Behavioral Analysis of Culture. Ledoux, S. F. (1995). Why and how to measure for pedagogy change success. Paper/poster provided at the seventh annual convention of The International Behaviorology Association, Gainesville, FL, 10–12 March.



Minutes of the 1999 Meetings of the TIBI Board of Directors

Within the parameters of the organization's by–laws, the official 1999 annual meeting of the TIBI Board of Directors was held on 18 July 1999. A subsequent meeting of the Board of Directors was held on 2 November 1999.

Present: Three of three active board members were present at both meetings. Two, Lawrence Fraley and Stephen Ledoux, were physically present in Reedsville, ww where the July meeting took place, and one, David Feeney, was present through availability for consultation by telephone. (As is Institute policy, all costs associated with meeting were born by the participants themselves, not by TIBI.) In accordance with the by—laws, all three board members communicated by telephone for the November meeting. By the end of the meetings, after full consultation with or among members available by phone, several actions had been taken. All actions were achieved through consensus and are considered unanimous.

July Meeting

The actions taken at the July meeting concerned dues for members in emeritus status, TIBIA conventions, the Institute's web presence, and the acceptance of a Treasurer's report. Each action will be described in turn.

July—Emeritus dues. The Board decided that members in recognized emeritus status may elect to take a dues reduction of up to 50% of their active status dues.

July—TIBIA convention. The Board decided to refrain from planning annual TIBIA conventions until the members themselves decided that having conventions was a viable and appropriate activity.

July—Web presence. The Board decided that funds were available to support "www.behaviorology.org" as a web site and so steps will be taken to make it active and available for TIBIA members, TIBIA projects, TIBI courses, electronic versions of brochures and publications, etc. In addition, members agreeing to take on necessary—and particularly intensive—web—site—related responsibilities would have their dues reduced one third. (David Feeney subsequently arranged and activated a Blackboard.com site to hold our community, courses, and materials. The portals at .org and .com and .net were subsequently added, thereby increasing accessibility.)

July—Treasurer's report. Noting that the New York State Charities Bureau Registration had been completed and that the New York State Tax—Exempt Organization Certificate had been received, the Board accepted the

Treasurer's report. These were TIBI's finances from I January 1999 through 30 June 1999:

BALANCE (as of 1999 January 1): Us\$331.14

INCOME:

us\$	762.00	Dues
us\$	5.89	Interest (on fee-free interest
		bearing checking account)
us\$	767.89	TOTAL

Expenses:

us\$	25.00	NYS fees
us\$	96.68	Newsletter printing (1 issue)
us\$	48.52	Postage
us\$	170.20	TOTAL

ACCT. BAL. ON 30 JUNE 1999: \$928.83

November Meeting

The action taken at the November meeting concerned increasing the size of the Board of Directors and expansion of the Institute's web presence. Each action will be described in turn.

November—Size of Board of Directors. To begin implementing its previous decision about the size of the Board of Directors, the Board appointed Advocate member Dr. John W. Eshleman to be a member of the TIBI Faculty and elected him to the Board of Directors. In addition, he was asked to serve as TIBI's Instructional Design Manager (as David Feeney, who had been exercising that post, was being asked to become TIBI's Digital Course Master).

November—Web presence. The Board decided to begin expanding the Institute's web presence through the addition of standard domain name portals to the Blackboard.com site, and to provide a set of standard contents at the site. (An attempt will be made to add to the site two courses per year for the next five years.)

A Treasurer's report was also available at the time of the November meeting. These were TIBI's finances from I January 1999 through 31 October 1999:

BALANCE (as of 1999 January 1): US\$331.14

INCOME:

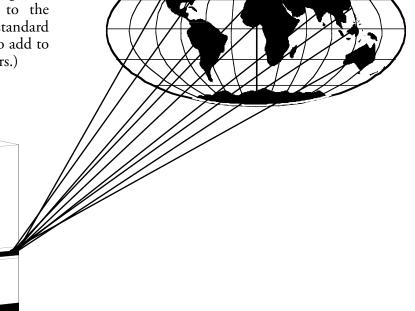
US\$	822.00	DUES
us\$	17.10	INTEREST (on fee-free interest
		bearing checking account)
us\$	839.10	TOTAL

Expenses:

us\$	25.00	NYS fees
us\$	96.68	Newsletter printing (1 issue)
us\$	48.52	Postage
us\$	35.00	Domain name
us\$	205.20	TOTAL

ACCT. BAL. ON 31 OCTOBER 1999: \$965.04

Standard procedure for minutes of meetings of the Board of Directors. The chair drafts the minutes and provides them to the other Board members who verify them, indicating additions and corrections. The chair then incorporates the changes and publishes the minutes in the corporate records and newsletter. These procedures have been followed with the current minutes. (Added at the end of the corporate-records copy are the signature of the chair and the date of 1999 November 5.)



TNT-4 Treasurer's Report

This report would cover TIBI's finances from I January 1999 through 31 October 1999. Since details were included in the Minutes of the annual meetings, they will not be repeated here. See those Minutes in this issue.

TIBIA Membership Benefits

Beyond the intrinsic value that TIBIA membership bestows by virtue of making the member a contributing part of an organization helping to extend and disseminate the findings and applications of the natural science of behavior for the benefit of humanity, and beyond the benefit of receiving the organization's publications, TIBIA membership benefits include the following:

- Members will have opportunities to present papers, posters, and demonstrations, etc., at the organization's meetings;
- Members who first join TIBIA in the last third of the calendar year will be considered as members through the end of the following calendar year;
- Members who first join TIBIA in the middle third of the calendar year will be allowed to pay one half the regular dues for the following calendar year;
- * A TIBIA member may request the Institute to evaluate his or her credentials to ascertain which TIBI certificate level most accurately reflects the work (and so, by implication, the repertoire) behind those credentials. The Institute will then grant that certificate to the member; as part of this evaluation, the Institute will also describe what work needs to be accomplished to reach the next certificate level. The normal processing fee for this service (us\$20) will be waived for members. For the processing fee of us\$20, a nonmember may also request this evaluation and, should she or he ever join TIBIA, the US\$20 already paid will be applied to the initial membership dues owed. (Faculty teaching behaviorology courses can encourage their students to request this evaluation.)

Tibia continuously considers additional membership benefits. Future iterations of this column will report all new benefits upon their approval.

TIBIA Membership Criteria and Costs

 $T_{\rm IBIA}$ has four categories of membership, of which two are non-voting and two are voting. The two non-voting categories are Student and Affiliate. The two voting categories are Associate and Advocate. All new members are admitted provisionally to TIBIA at the appropriate membership level. Advocate members consider each provisional member and then vote on whether to elect each provisional member to the full status of her or his membership level or to accept the provisional member at a different membership level.

Admission to TIBIA in the Student membership category shall remain open to all persons who are undergraduate or graduate students who have not yet attained a doctoral level degree in behaviorology or in an acceptably appropriate area.

Admission to TIBIA in the Affiliate membership category shall remain open to all persons who wish to maintain contact with the organization, receive its publications, and go to its meetings, but who are not students and who have not attained any graduate degree in behaviorology or in an acceptably appropriate area. On the basis of having earned TIBI Certificates, Affiliate members may nominate themselves, or may be invited by the TIBI Board of Directors or Faculty, to apply for an Associate membership.

Admission to TIBIA in the Associate membership category shall remain open to all persons who are not students, who document a behaviorological repertoire at or above the masters level or who have attained at least a masters level degree in behaviorology or in an acceptably appropriate area, and who maintain the good record—typical of "early—career" professionals—of professional accomplishments of a behaviorological nature. On the basis either of documenting a behaviorological repertoire at the doctoral level or of completing a doctoral level degree in behaviorology or in an acceptably appropriate area, an Associate member may apply for membership as an Advocate.

Admission to TIBIA in the Advocate membership category shall remain open to all persons who are not students, who document a behaviorological repertoire at the doctoral level or who have attained a doctoral level degree in behaviorology or in an acceptably appropriate area, who maintain a good record of professional accomplishments of a behaviorological nature, and who demonstrate a significant history—typical of experienced professionals—of work supporting the integrity of the organized discipline of behaviorology including its organizational manifestations such as TIBI and TIBIA.

For all membership levels, prospective members need to complete the membership application form and pay the appropriate dues.

Establishing the annual dues structure for the different membership categories takes partially into account, by means of percentages of annual income, the differences in income levels and currency values among the world's various countries. Thus, the annual dues for each membership category are:

Other Dues (in US dollars <u>Category</u> —\$20 minimum)

Board of Directors The lesser of 0.6% of member annual income, or \$120.00

Faculty The lesser of 0.5% of member annual income, or \$100.00

Membership Dues (in US dollars <u>Category</u> —\$10 minimum)

Advocate The lesser of 0.4% of member annual income, or \$80.00

Associate The lesser of 0.3% of member annual income, or \$60.00

Affiliate The lesser of 0.2% of member annual income, or \$40.00

Student The lesser of 0.1% of member annual income, or \$20.00

TIBIA MEMBERSHIP APPLICATION FORM

(SEE THE NEXT PAGE FOR THE TIBI / TIBIA PURPOSES.)

Copy and complete this form (please type or print) then send it with your check (made payable to TIBIA) to:

Dr. Stephen Ledoux Tibia Treasurer suny-ctc Cornell Drive

Canton NY 13617 USA

Name:	Member Category:
Office Address:	Amount enclosed: us\$
	Home Address:
Office Phone #:	Home Phone #:
Fax #:	CHECK PREFERRED MAILING ADDRESS:
E-mail:	Office: Home:
Degree/Institution*:	Sign & Date:
*I verify that the above person is eni	rolled as a student at:
Name & Signature of Advisor or De	ept. Chair:

TIBI / TIBIA Purposes*

 $T_{\rm IBI}$, as a non profit educational corporation, is dedicated to many concerns. Tibi is dedicated to teaching behaviorology, especially to those who do not have university behaviorology departments or programs available to them; tibi is a professional organization also dedicated to expanding the behaviorological literature at least through the TIBI News Time newsletter and the Behaviorology and Radical Behaviorism journal;** TIBI is a professional organization also dedicated to organizing behaviorological scientists and practitioners into an associa-(The International Behaviorology Institute Association—TIBIA) so they can engage in coordinated activities that carry out their shared purposes. These activities include (a) encouraging and assisting members to host visiting scholars who are studying behaviorology; (b) enabling TIBI faculty to arrange or provide training for behaviorology students; and (c) providing TIBI certificates to students who successfully complete specified behaviorology curriculum requirements; and TIBI is a professional organization dedicated to representing and developing the philosophical, conceptual, analytical, experimental, and technological components of the discipline of behaviorology, the comprehensive natural science discipline of the functional relations between behavior and independent variables including determinants from the environment, both socio-cultural and physical, as well as determinants from the biological history of the species. Therefore, recognizing that behaviorology's principles and contributions are generally relevant to all cultures and species, the purposes of TIBI are:

- A. to foster the philosophy of science known as radical behaviorism;
- B. to nurture experimental and applied research analyzing the effects of physical, biological, behavioral, and cultural variables on the behavior of organisms, with selection by consequences being an important causal mode relating these variables at the different levels of organization in the life sciences;
- C. to extend technological application of behaviorological research results to areas of human concern;
- D. to interpret, consistent with scientific foundations, complex behavioral relations;

*This statement of the TIBI / TIBIA purposes has been quoted from the TIBI by—laws.

**This journal (BARB) is under development at this time and will appear only when its implementation can be fully and properly supported.—Editor

- E. to support methodologies relevant to the scientific analysis, interpretation, and change of both behavior and its relations with other events;
- F. to sustain scientific study in diverse specialized areas of behaviorological phenomena;
- G. to integrate the concepts, data, and technologies of the discipline's various sub-fields;
- H. to develop a verbal community of behaviorologists;
- to assist programs and departments of behaviorology to teach the philosophical foundations, scientific analyses and methodologies, and technological extensions of the discipline;
- J. to promote a scientific "Behavior Literacy" graduation requirement of appropriate content and depth at all levels of educational institutions from kindergarten through university;
- K. to encourage the full use of behaviorology as the essential scientific foundation for behavior related work within all fields of human affairs;
- L. to cooperate on mutually important concerns with other humanistic and scientific disciplines and technological fields where their members pursue interests overlapping those of behaviorologists; and
- M. to communicate to the general public the importance of the behaviorological perspective for the development, well-being, and survival of humankind.

TIBI / TNT Information

TIBI News Time (TNT), the newsletter of The International Behaviorology Institute, a non-profit educational corporation, is published in the spring and fall each year.

Tibi can be contacted at:

9 Farmer Street • Canton NY 13617–1120 • USA Phone • Fax: (315) 386–2684 • 386–7961 Electronically: www.behaviorology.org

The TNT newsletter editor is Stephen F. Ledoux.

To submit items for publication, contact the editor. Send items on a 3.5 inch Mac-formatted disk, in a program that can be placed in PageMaker 5.0, with a hard copy, to the editor at:

SUNY-CTC • Arts and Sciences • Cornell Drive Canton NY 13617-1096 • USA

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