

CHAPTER II: PROCEDURE

“If you aim to dispense with method, learn method.

If you aim at facility, work hard.

If you aim for simplicity, master complexity.”

-Lu Ch'ai, in Mai-mai Sze (Trans.), *The Way of Chinese Painting*, p. 131.

Method and Protocol Design

Choice of research methodology is determined by the purposes for which the research is undertaken, the characteristics of the population to be studied, the approach the intended audience is likely to value and believe, and the questions used to initiate the inquiry. In general, the approach taken in this research followed guidelines for holistic, naturalistic, discovery-oriented inquiry (Patton, 1980). In the language of Taijiquan, the method used was to apply *tingjin*: “listening energy.” *Ting*, to listen, is a Chinese character comprised of a towering image of an ear that dwarfs the image of a person, a researcher in this case, sitting beneath it. The researcher would thereby be enjoined to be unobtrusive, to be receptive, to be attentive. *Ting* also contains an image of the heart, the eye, and a symbol for innermost consciousness. In giving ear to what is happening in the field of interest, the researcher applying *tingjin* casts a wide net with fine meshes: both to test the waters and to gather specific, intimate detail. By honoring individual perspectives, by

viewing reality *in situ*, rather than by manipulating it or reconstructing it experimentally, the researcher hoped to contribute to the understanding of Taijiquan in a way that would be valued by those most closely involved.

Since what would be discovered was not known or postulated in advance, an exploratory methodology was adopted, in which “the investigator displays a willingness to be led by his data along unexpected paths although he of course also gives direction to the analytic course” (Rosenberg, 1968, p. 211). A mail-return survey instrument seemed best suited to this exploratory purpose: to reach a broad spectrum of instructors nationwide, to obtain responses that could be coded, enumerated, compared and combined, and to elicit a manageable amount of qualitative data.

The study was observational, in that there was no intent to alter events; it was cross-sectional, in that subjects were examined only on one occasion. At the start of this research, it was proposed that the survey be followed by interviews of teachers determined to be representative or to have unique approaches to Taijiquan, and by a number of on-site observations of Taijiquan classes. Three interviews and two observational sessions were actually completed. However, despite the value to ethnographic or qualitative research of a multimodal approach and the desirability of triangulation by eclectic methods of data collection (Patton, 1980; Goetz and LeCompte, 1984), it was found that analysis of data from the survey instrument alone would be sufficient to provide preliminary answers to the research questions posed, and to satisfy the exploratory, descriptive purpose of the project as planned. The time needed to conduct a single-handed analysis of the survey data also

precluded further data collection; so the rewarding work of entering more fully into the world of individual teachers had to be postponed.

The instrument was at first envisioned as a relatively brief questionnaire which would serve as a key to the selection of a subset of participants willing to be interviewed and observed. The conflicting goal of arriving at a broad profile, however, and the increasing elaboration of areas of interest led to a far more detailed questionnaire. The survey instrument was designed primarily to address the specific research questions posed in Chapter I. In brief, these were *who* is teaching Taijiquan, *what* do they believe it to be, and *how* do they go about teaching it. Secondarily, the instrument addressed a number of issues which emerged from a consideration of Taijiquan's evolution in this country, addressed in the "Background" section of Chapter I. Both open-ended and closed response questions were used in the instrument to elicit data that could be encoded and tabulated as well as data requiring inductive analysis (see "Analysis and Interpretation," below).

A formal pre-test on a draft of the instrument was conducted in June, 1988 in order to receive comment from potential respondents who were also subject-matter experts. Fifteen Taijiquan teachers participated in the pre-test. Their observations and detailed commentary on the form and wording of items and the scope and focus of the survey were used to construct the final version of the questionnaire.

The questionnaire was ultimately organized into eight sections in the following order: Background (8 items related to respondents' Taijiquan study history); Objectives (9 items related to instructional objectives); Method (11

items regarding approach to classes and students); Teacher Role (29 items related to lineage and respondents' view of themselves as teachers); Curriculum (13 items related to sequencing and subject matter); Texts (7 items regarding books, periodicals and personal journals); a Likert scale (Oppenheim, 1966, p. 133) measuring agreement and disagreement with 16 statements about various issues; and Personal (17 items requesting demographic data and more personal information). The questionnaire was typed on 8.5x11 sheets, which were then reduced to fit side by side on 8.5x11 sheets turned sideways. These sheets were photocopied back and front on ivory stock, folded and stapled to form 8.5x5.5 inch booklets. A copy of the text of the final questionnaire used in this study, accompanied by frequency tabulations for quantifiable responses, is in Appendix B of this study.

On July 27, 1988 a letter of introduction was sent to an initial mailing list of instructors. These instructors were then sent the final version of the questionnaire on August 17, 1988. Up until the second week of September, this procedure was followed with all instructors: an introductory letter was mailed first, followed in approximately two to three weeks by the questionnaire. After that date, questionnaires were mailed without being preceded by an introductory letter. To reduce the rate of non-response (Fowler, 1988, p. 54), a reminder card was mailed on September 16 to those who had not yet returned the questionnaire. Active solicitation of new addresses and mailing of survey instruments ceased in early October. When a questionnaire was received, a card of acknowledgement and thanks was sent to the respondent. All questionnaires received by June, 1989 were included in the study.

Sampling Considerations

An effective research methodology must attempt to overcome potential biases in sampling. For the results to be generalized, steps must be taken to assure the representativeness of the sample. This is often done by some form of random sampling. For this study, no mailing list of instructors large enough to be used as a basis for random or systematic sampling was available. The claim for the representativeness of this study is therefore based on the size of the sample surveyed. Two-hundred sixteen responses must be considered a sufficient number on which to base tentative inferences at the present time. While some states were well represented in the sample, in states such as California and New York the study barely scratched the surface. At the time of the survey it is probable that only about 7% of the national population of teachers was contacted. By this estimate, there would have been some 5,000—6,000 Taijiquan teachers in the United States in 1988.

Identification of potential respondents was criterion-based and inclusive. The only criteria for participation were that subjects must have taught Taijiquan for a minimum of one year and live in the United States. A few Canadian teachers requested questionnaires, but their offers to participate had to be declined. The process was inclusive in that all individuals who met the criteria and who could be contacted by mail were invited to participate.

The cornerstone of the mailing list was a directory accumulated while the researcher served as secretary of the Taiji Exchange, founded in 1982: a non-profit association of Taijiquan teachers from a wide variety of schools and backgrounds. The Exchange began as a southeastern regional fellowship,

but eventually included subscribers from across the country. It ceased activity with the publication of the Autumn 1988 issue of its newsletter *Changes*. Addresses were garnered from notes and articles in *T'ai Chi*, directories in *Internal Arts Magazine* and *Inside Kung-fu*, and from mailing lists donated by a few teachers. Some inquiries came in from a notice that appeared in the newsletter *T'ai Chi*. Addresses also came from contacts made by the researcher and others at major east coast events, particularly the Zhang Sanfeng Festival at Taiji Farm in New Milford, New York, and at Taste of China in Winchester, Virginia. In addition, friends sent addresses of instructors they discovered on travels to other parts of the country. Lastly, a note at the end of the survey instrument asked respondents to provide the names and addresses of other instructors. Over 150 contacts were made in this manner, referred to as *network selection* by Goetz and LeCompte (1984).

The composition of the group which ultimately responded to the survey was influenced by a number of potentially biasing factors. Self-selection played a part, in that returning the questionnaire was voluntary. It is also likely that the length of the questionnaire had an influence. It is known that returns will be higher among those who are interested in the subject-matter of the survey, and that "better-educated people usually send back mail questionnaires more quickly than those with less education" (Fowler, 1988, p. 49). A relatively high response rate may have gone far toward ameliorating the latter effect, but this biasing effect may account in part for the high proportion of respondents with college and graduate degrees (see Chapter IV, Figure IV-1).

In the initial stages, many contacts were made at gatherings held on the east coast, and these alone would neither have been representative of instructors who did not attend such functions, or of instructors in the central and western portions of the country. As network selection began to play a larger role in the later stage of data collection, however, these potential biases in the initial list were tempered. In all, questionnaires were received from 216 instructors living in 38 states and the District of Columbia (see Table II-1). In listing their own teachers, respondents gave the names of 132 different primary teachers. This presents a fairly broad spectrum.

Of the 380 survey instruments sent to reliable addresses, 216 were returned. The overall response rate for this study was thus $216/380=56.8\%$. Fifty questionnaires were mailed to instructors with Chinese names, and of these, 21 were returned. The response rate was thus 42% for those of Chinese extraction, and 59.1% for those of other extraction. One instructor wrote:

Because in your survey I find out many new vocabulary, when I was reading and filling this book, I alway used many times dictionary. Like 'subtle,' 'foster,' 'lineage.' It has to take me much time than other people do. I am sorry I delayed to send you back" (256).

A shorter survey would almost certainly have increased the response rate, and should be considered in future studies. Questionnaires were mailed to 83 women, and returned by 57. The response rate for women was thus 68.7%, and for men 53.9%. Respondents were assured of anonymity and confidentiality. As questionnaires came in, they were assigned an identification number. Respondents are identified throughout this research report only by these numbers in parentheses, for instance as (256), above.

Table II-1

Number of Respondents by State

State	f	% of 216	State	f	% of 216
Alabama	5	2.3	Montana	0	0
Alaska	0	0	Nebraska	0	0
Arizona	5	2.3	Nevada	0	0
Arkansas	4	1.9	New Hampshire	2	0.9
California	20	9.3	New Jersey	14	6.5
Colorado	5	2.3	New Mexico	1	0.5
Connecticut	3	1.4	New York	17	7.9
Delaware	4	1.9	North Carolina	6	2.8
D. C.	2	0.9	North Dakota	0	0
Florida	5	2.3	Ohio	2	0.9
Georgia	1	0.5	Oklahoma	0	0
Hawaii	1	0.5	Oregon	4	1.9
Idaho	1	0.5	Pennsylvania	10	4.6
Illinois	5	2.3	Rhode Island	0	0
Indiana	5	2.3	South Carolina	3	1.4
Iowa	1	0.5	South Dakota	0	0
Kansas	0	0	Tennessee	4	1.9
Kentucky	2	0.9	Texas	8	3.7
Louisiana	2	0.9	Utah	0	0
Maine	4	1.9	Vermont	2	0.9
Maryland	15	6.9	Virginia	13	6.0
Massachusetts	12	5.6	Washington	8	3.7
Michigan	8	3.7	West Virginia	2	0.9
Minnesota	3	1.4	Wisconsin	3	1.4
Mississippi	0	0	Wyoming	0	0
Missouri	4	1.9			

Analysis and Interpretation

This research could be thought of as *quasi-ethnographic* in that, though it did not employ the characteristic interactive tools of ethnography, it did make use of ethnographic methods of analysis and interpretation (Goetz and LeCompte, 1984, p. 18). The quantitative phase of the analytic procedure was the encoding of data that could be readily categorized, either by the closed nature of the stimulus (yes=1, no=2 for example) or because it fit within categories of response common enough to be assigned a numerical or alpha-numeric code. One hundred and eighty-nine variables were encoded from each of the 216 questionnaires received. Frequencies for the data set thus created provided some of the information used to answer research questions one and three: who is teaching and how are they teaching. This data is reported and discussed in Chapters IV and V. The data set was also used to assign index scores, and to run comparative measures of relationship among groups, discussed in Chapter VI.

The qualitative phase of the analysis made use of what Goetz and LeCompte (1984) call “formal analytic strategies--inductive, comparative, typological, or enumerative” (p. 241). The procedures employed in answering research question two, what do teachers believe Taijiquan to be, provide an example of these strategies. Quotive material from item six in the Background section of the survey instrument was first amassed into a common file by typing it from individual questionnaires. This data was then scanned repeatedly, and units of analysis in the form of words or phrases with related meanings were identified, listed, and enumerated. By comparing and contrasting the units of analysis, relationships or linkages among them

began to suggest the definition of larger categories, or analytic frames (Goetz and LeCompte, 1984 p. 183).

Each of the definitional categories described in Chapter III emerged through this inductive process from the complex fabric of pure, quotive data provided by 191 respondents. The Unitive category, for instance, took shape gradually over an extended period, during which various units of analysis related to mind, body, and spirit, to meditation, to nature, to harmony, to self-realization, and so on, were held in a kind of suspension, seeming to re-align continually in different configurations. At one time, "Meditation" was posited as a major definitional category. Another category, referred to as "Being" emerged for awhile. At another point, the same units of analysis were divided into two and more categories. At last, all those loose elements came together around a concept of unity and integration that was at once coherent and satisfying. The search for a taxonomic arrangement of effective teaching practices, the subject of Chapter V, utilized the same inductive method of discovering ordering principles within the data itself through what Goetz and LeCompte (1984) call "systematic content analysis" (p. 170).

A further use was made of the quantified data set in constructing indexes and defining groups for use in statistical analysis. Four of the six indexes delineated in detail in Chapter VI were designed to represent issues of concern to the Taijiquan community that emerged from a reading of all questionnaires: relative martiality (the Martial Index), relative importance ascribed to lineage (the Lineage Index), degree of community orientation and receptivity to other views (the Openness Index), and involvement with Chinese culture (the Culture Index). The other two indexes, degree of

reflectivity in teaching (the Reflective Teaching Index), and susceptibility to unrealistic thinking (the Magical Thinking Index), were designed to provide insight into concerns specific to this study. The indexes were constructed using items from the questionnaire related by common themes. The items were assigned point values, and respondents were placed along the continuum defined by each index based on the score they received on all items comprising the index. If data were missing for any item on an index, the respondent was not assigned a score for that index. The sample size for each index, therefore, varied with the number of respondents who completed all items on the index. The creation of these composite variables by the aggregation of data around common themes permitted further characterization of the respondent pool and preliminary inferences about the population of Taijiquan teachers in America, in partial answer to research question one. In addition, groups defined by responses to single items on the survey instrument such as gender, income, and style were compared and contrasted using statistical procedures. Results of these tests are discussed in Chapter VI.

Statistical manipulation of the quantified data set was accomplished using Version 6 of the SAS[®] statistical package for personal computers. Comparisons of groups on nominal or categorical variables were carried out by Chi-square tests; comparisons of continuous variable were made using the *t* and F tests. Standard SAS[®] output for each index included stem and leaf plots and boxplots, measures of skewness, kurtosis, central tendency, quantiles and frequency counts. The relationships between selected continuous variables and correlations of the indexes were assessed using the Pearson correlation coefficient. A coefficient of 0.15 or above and -0.15 or

below was considered a significant indication of correlation. On all tests, probability in the range of 0.05—0.10 was considered *suggestive*, while probability of <0.05 was considered *significant*. All percentages reported in this study, unless carried to the third decimal place or otherwise noted, were rounded *down*.

The reliability of statistical tests increases under controlled conditions. Bearing in mind, however, that this research was not experimental, and that its purpose was primarily descriptive and exploratory, statistical procedures were employed to probe for possible relationships in the survey sample, and to suggest patterns in the population of Taijiquan teachers at large. The validity of this leap of faith depends on whether the sample surveyed is representative, and also on whether the indexes are reliable indicators of more than the sum of their parts. Neither the groups nor the survey sample as a whole were randomly or deliberately sampled; there was no control group, treatment, nor experimental manipulation; and index items were not evaluated for validity or reproducibility. Therefore, inferences from cross-tabulations must be regarded as limited or qualified. Nevertheless, the study will have accomplished its purpose if the members of the subject population affirm the usefulness of the picture presented here in broad, suggestive strokes.

In brief, the first research question, *who* is teaching Taijiquan, is addressed in Chapter IV by tabulation and interpretation of a variety of demographic items. The second research question, *what* do they believe it to be, is addressed by systematic content analysis in Chapter III. The third research question, *how* do they go about teaching it, is addressed by

systematic content analysis in Chapters IV and V. In addition, issues of interest to a further characterization of the relationships among groups of teachers and of the current state of Taijiquan teaching in America are addressed by systematic content analysis in Chapter IV (“Preferred Texts,” “Snake Oil,” “The Knees,” and “Accountability”) and by statistical analysis in Chapter VI.