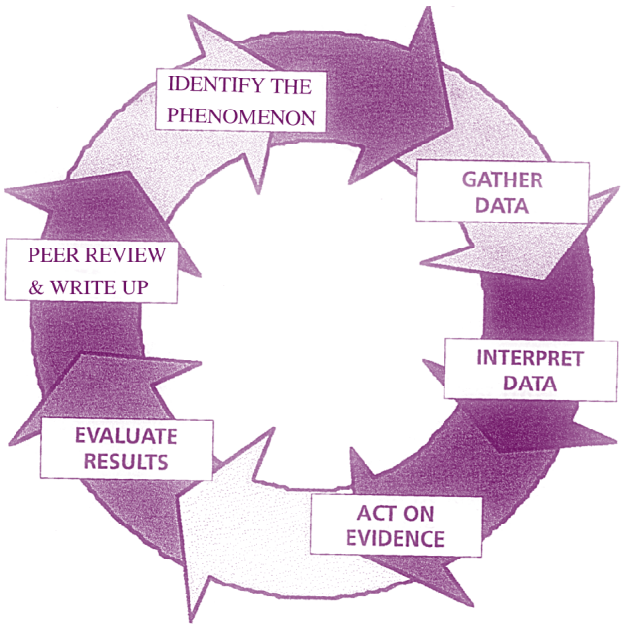
Research Guidelines

prepared by

AWSNA WHSRP
Planning Group



Model of Action Research Circle

WHSRP Planning Group: Andy Dill, Douglas Gerwin, David Mitchell, Leonore Russell, Betty Staley

Introduction

Research is valued and needed in Waldorf education. The Waldorf High School Research Project has provided financial support for twenty-five research projects over the past five years. We have receivedmany comments of gratitude from those who have become inspired by these projects.

As we enter into a new phase of soliciting research we have put together this booklet as a guide for those contemplating submitting a proposal. Included you will find:

The WHSRP is especially looking for research on:

- Sexuality as taught in grades 6-12
- Changes in pre-adolescence (grades 5-8)
- Comments from university professors regarding Waldorf graduates that they have taught
- Use of computers and the teaching of technology
- The developing of a new Waldorf high school
- Art and experiential education

The Four Phases of Research

The world today asks that problems be solved not only in the most expedient, or profitable way but also in a way that the human beings involved in the work can grow and develop along with the well being of the activity itself. To focus on the appropriateness of the process for those involved not only enhances productivity but develops a deep loyalty and concern among those who are working together. In the distant past the roots of the original trade guilds were built on such concerns for the process. In those times, process oriented thinking was known as alchemy, a study of how processes which fostered the creative activities in Nature could be used to model human interaction in groups and guilds. People who wish to work on processes today can learn much from the language of alchemists. Images taken from Nature can be refined and then employed meditatively as analogues for problem solving whether personally or in groups.

The following questions can be used to define and implement the stages of alchemical problem solving.

Physical thinking: The fundamental stage in problem solving. Facts and data are gathered with the question—what is different? This stage the alchemists would characterize in terms of Earth.

Living thinking: The facts are arranged into sequences of typical movement or flow patterns with the question—what is changing? This stage the alchemists would characterize in terms of Water.

Feeling thinking: The patterns are considered from the point of view as to how they are likely to evolve to an extreme of where they are today. The ultimate question at this stage being—what is reversing? This stage the alchemists would characterize in terms of Air.

Creative thinking: The rhythm of the problem solving process is considered from the point of view of what the problem is likely to look like in many years with the question —what is the whole? This stage, in which the original material of research is completely transformed and born anew, would be characterized in terms of Fire.

These four stages are an archetypal pattern underlying most interactions between humans as well as most patterns of change in the Natural world. When undertaking research, it is crucial to recognize these four phases and to trust that they do lead to fresh insights. All too easily, research never gets past a "membrane" distinguishing the second from the third phase. At this critical boundary, the researcher may experience a loss of direction and clarity: the data appear to "reverse"; the initial hypothesis comes unglued, one begins to feel that one is loosing one's way. This is the first moment of "Air." The risk at this juncture is to revert to the gathering of new data—that is, to circle back to the initial phase of "Earth" rather than simply to trust the chaos and confusion that has arisen and just "hang in there" with a feeling of suspended disbelief.

Practice in recognizing and implementing knowledge about these patterns is an invaluable aid to group process and personal growth. These questions can be arranged in the form of a mandala which is useful when undertaking work on the self or attempting to establish a group awareness of the assets and liabilities of the group with regard to process.

— We are most grateful to Dennis Klocek for his articulation of the four phases of research above.

An Introduction to Research

What is research?

Research is the activity of carefully and systematically studying or investigating an area of interest.

There are many methods of research including:

Action research
Horizontal research
Longitudinal research
Quantitative research
Qualitative research
Statistical research
Anecdotal research
Curriculum development
Organizational development
Empirical research

Why is research important to us?

The activity of research in Waldorf education helps us to be more conscious and professional in our task as teachers or administrators. It allows us to share our work with the larger educational world and be of service to children beyond our immediate contact.

The act of research also allows students to experience their teachers as growing and changing human beings. This inner activity the students will imitate inwardly.

Of all the models of research which are the most useful?

Action research, qualitative research, and longitudinal research are the models that seem most applicable to Waldorf education.

What is Action Research?

Action research is a process in which individuals examine their own educational practice using the techniques of research. In most of its forms it does this by using a cyclic or spiral process which alternates between action and critical reflection and in the later cycles, continuously refines methods, data and interpretation in the light of the understanding developed in the earlier cycles.

It is thus an emergent process which takes shape as understanding increases; it is an iterative process which converges towards a better understanding of what happens. In most of its forms it is also participative (change is usually easier to achieve when those affected by the change are involved) and qualitative.

Action research is inquiry or research in the context of focused efforts to improve the quality of an organization and its performance. It typically is designed and conducted by practitioners who analyze the data to improve their own practice. Action research can be done by individuals or by teams of colleagues. The team approach is called collaborative inquiry.

Action research has the potential to generate genuine and sustained improvements in schools. It gives educators new opportunities to reflect on and

assess their teaching; to explore and test new ideas, methods, and materials; to assess how effective the new approaches were; to share insights and suggestions with fellow team members; and to make decisions about which new approaches to include in the team's curriculum, instruction, and assessment plans.

Put simply, action research is "learning by doing"—a person or group of people identifies a problem, does something to resolve it, sees how successful these efforts were, and, if not satisfied, tries again. While this is the essence of the approach, there are other key attributes of action research that differentiate it from common problem-solving activities that we all engage in every day.

A more succinct definition is, "Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process."

Several attributes distinguish action research from other types of research. Primary is its focus on turning the people involved into researchers, too; people learn best, and more willingly apply what they have learned, when they do it themselves. It also has a social dimension—the research takes place in real-world situations, and aims to solve real problems. Finally, the initiating researchers, unlike in other disciplines, make no attempt to remain objective, but openly acknowledge their bias to the other participants.

Steps in Action Research

1. Identify the phenomenon
2. Collect all statistical or anecdotal data
3. Interpret the data
4. Initiate an action based on the data
5. Reflect on your observations
6. Evaluate and test your conclusions
7. Determine the next steps

What is Qualitative Research?

The purpose of qualitative research is to understand and describe participants' experiences, to allow them to "tell their story." One means of doing this is to identify the common themes that emerge when participants describe their experiences in their own words. The goal is to produce an account of their experience that is faithful to what they have reported, that extends to other related contexts, and that can be audited in terms of the researcher's decisions. We want a retelling of their stories that they will look at and say, "Yes, that says what it's like better than I could."

Researchers are involved with participants. Personal rapport and trust are crucial. The clinical intake interview is a good model for the interviews. The interviewer has a general direction for the interview to go ("What brings you here; who are you?" or "What is your experience of . . . ?"). While keeping to that direction, the interviewer allows the participants to speak for themselves and welcomes surprise turns in the interview. The interview is allowed to range over any topics that the researcher or participant feels are relevant.

Below is one example of a qualitative strategy based on interviews. There is often overlap between these steps. Parts of the process are circular. For instance, the literature search can suggest reformulations of the research question and early interviews can suggest questions for later interviews.

Steps in Qualitative Research

1. Formulate the research question in general terms: What are participants' experiences of the phenomenon of interest?
2. Literature search. May include insights from literature, poetry, art as well as traditional scientific accounts. (Note: some argue that the literature search should be done after data collection and analysis so as not to bias the data collection. There seem to be strong arguments both ways.)
3. Define relevant characteristics of participants. Select participant pool.
4. Identify relevant areas to explore. Draft several open-ended questions. These questions will be used to start the interviews and other questions will be asked to keep the interview flowing. Record the process of deciding on questions for later auditing.
5. Pilot test questions and debrief with participants.
6. Finalize questions. Again, record the decision process.
7. Recruit participants. This step means deciding who will actually be interviewed. There are two approaches. One is to select participants, interview them, and analyze the themes until "saturation" is reached, until no new themes emerge. (In one study of students this meant 10 interviews per group.) Sometimes participants are selected for special characteristics most and least successful, for example. Generally, the number of interviews is not very high.

Data Gathering

1. Conduct interviews. Start with standard, open-ended questions and add new questions as they arise. The aim is to allow the participant to describe questions as his/her own experience Tape record and take notes to help guide the interview. Notes do not have to be thorough, the recording will do that. Rather, they can refer to nonverbal communication and other aspects of the interview the tape recorder does not get. Some researchers take pictures to help recreate the context of the interview. Of course, informed consent will always be obtained and other ethical principles followed.
2. Soon after the interview record your own feelings and reactions. Record the decision trail that occurred within the interview. "Why did you ask that particular question?"
3. A shorter second interview may be conducted. See if any new information occurred to participants and clear up confusions from first interviews.

Data Analysis

1. Transcribe the interview.
2. The interviewer reads the transcription while listening to the tape. Note feelings, nonverbal language, etc.

3. List topics with minimal editing or analysis.
   Examples of topics include behaviors, meanings, practices, episodes, feelings, roles, and relationships There is computer software (such as *Agenda*, the *Ethnograph*, and *Hypercard*) to aid this process. The old standby is 3 x 5 cards organized into piles on the desk.
4. Organize topics into themes and categories. There may be several levels of categories. Categories can be empirically driven, letting the data speak for themselves, and they can be "theory" driven, using categories that have already been established. And there should always be an "Other" category. Also, there may be a lot of trial and error in this stage, trying out themes and categories
5. Identify categories. Name, define, discuss, illustrate with examples from transcripts. Construct accounts of participants experiences: what is important Importance may come from a high frequency of reports or from having a particularly meaningful impact.
6. Present descriptive statistics such as frequencies of the most common themes.
7. Search out negative instances Welcome surprise. Discuss findings that stand out or don't fit.
8. Check categories examples, and accounts with others: staff, outside professionals, specific participants, "naive" commentators. Ask questions such as "Does this make sense, is it true to your experience, do you recognize your experiences here, what other questions does it raise for you?"

What is a longitudinal study?

A longitudinal study is a non-experimental research design in which the researcher collects data from the same population at more than one point in time. (This does not always mean that the same subjects are used to collect data at more than one point in time, but that the subjects are selected from the same group or population for data at more than one point in time.)

This method is utilized when the researcher is concerned not only with the existing status of phenomena but also with changes that result from elapsed time. Because the same subjects are followed over time, differences observed from one observation to another can be attributed to individual change, rather than variation between different samples of subjects.

Structured questionnaires, structured and unstructured interviews are methods of data collection used for descriptive studies. The researcher may also utilize observation and physiologic measures for data collection providing there has been no deliberate intervention.

In analyzing the data, the investigator draws conclusions and may attempt to find correlations between variables. Therefore, descriptive longitudinal studies are uniquely appropriate for assessing change over time and for situation relating (prediction) questions because variables are measured at more than one time.

The information above was adapted from the following sources: Ferrance, Eileen. *Action Research*, Providence, RI: Northeast and Islands Regional Educational Laboratory at Brown University, 2000; >http://trochim.human.cornell.edu/kb/qualdata.htm<; http://usuarios.iponet.es/casinada/arteolog/150.htm<; <http://www.liu/cwis/cwp/library/workshop/citchi.htm.<; >http://www.ic.polyu.eduhk/posh97/private/research/methods-action-research/overview.htm<;and >http://caber.aed.org/surves.htm<.

Key Rule for all Methods

Keep a dated log book noting your observations, findings, and resources consulted.

Useful and Humorous Research Phrases

Research Phrase	*Translation*
It has long been known	I didn't look up the original reference.
A definite trend is evident	These data are practically meaningless.
Of great theoretical and practical importance	Interesting to me.
While it has not been possible to provide definite answers to these questions	An unsuccessful experiment, but I still hope to get it published.
Three of the samples were chosen for detailed study	The results of the others didn't make any sense.
Typical results ore shown	The best results are shown.
These results will be shown in a subsequent report	I might get around to this sometime if I'm pushed.
The most reliable results are those obtained by Jones	He was my graduate assistant.
It is believed that	I think.
It is generally believed that	A couple of other people think so too.
It is clear that much additional work will be required before a complete understanding of the phenomenon occurs	I don't understand it.
Correct within an order of magnitude	Wrong.
It is hoped that this study will stimulate further investigation in this field...	This is a lousy paper, but so are all the others on this miserable topic
Thanks are due to Joe Blotz for assistance with the experiment and to George Frink for valuable discussions	Blotz did the work and Frink explained to me what it meant.

— Graham, Jr., *C. D., Metal Progress* Volume 71.

Protocol #1

for research proposals submitted to

WHSRP

The following guidelines must be followed.

1. Submit an one or two page proposal addressing the following questions:
   - What is the theme(s) of your research or your research question?
   - What methods of research you will employ—what will be your approach to your project?
   - What is your background/relationship to your research question?
   - What is the population that you propose to research?
   - What expectations do you have from your research project?
   - What do you hope to learn?
   - What impact do you expect this to have on Waldorf education?
   - What is the time-line you propose?

   Send five copies of the proposal to:

   Douglas Gerwin
   P.O. Box 850
   Abbot Hill Road
   Wilton, NH 03086

- The AWSNA WHSRP will evaluate all the proposals and will notify every applicant.

- If your proposal is accepted you will be invited to proceed with your research.

- When your project is complete, you will need to submit a paper following the guidelines indicated in the Protocol #2 .

- A member of the WHSRP Planning Group will be assigned to you to answer questions or offer assistance.

- After your paper has been accepted by the WHSRP Planning Group you will be sent an honorarium; if your paper requires additional work, the Planning Group will offer suggestions on bringing the research to a successful completion.

- Your paper will then be available to all Waldorf teachers through AWSNA Publications. If you decide to work further on your research or enlarge upon it, you are free to solicit a publisher of your choice; however, the original research will still be the property of AWSNA.

Protocol #2

for final research papers submitted to WHSRP

The paper must include the following:

- an abstract of about 500 words
- a title page (plus table of contents)
- the body of your research, including an evaluation of your results (e.g., data analysis, review of student questionnaires, etc.)
- graphics as needed
- bibliography of sources used or cited in your research

As you prepare your final version, we would like you to address, if at all possible, these general questions:

i) Where do you place your subject or topic in the Waldorf high school program (grades 9-12), and why?

ii) What makes your topic or approach distinctly related to Waldorf education (e.g., relationship to the developmental stages of the teenager, or to the themes of each high school year, or to the unfolding of the adolescent's physical, psychological, and spiritual life)?

The following guidelines must be followed.

1. Submit an electronic file on a floppy, CD-ROM protocol ISO 9660, or Iomega 100 MB or 250 MB disk.
2. Submit a paper copy following the eight guidelines below:
   - All photos or illustrations must be in tiff, jpeg, or pict format at a resolution of 300 dpi or higher.
   - All text must be in the font "Times" @ 12 points.
   - The electronic version is best received in MS Word. If this is not available to you, you should "Save As" and make the file a RTF (rich text file)
   - Text must be double spaced for editing.
   - One space only after every period, question mark, and exclamation mark.
   - Use the grammatical and style rules, as well as formatting for footnotes (or endnotes) and bibliography as set out in *The Chicago Manual of Style*.
     (See Chicago citation styles on next page.)
   - Spell check and proofread your final copy
   - Send one paper copy and an electronic file (adhering to guidelines) to:

David Mitchell
AWSNA Publications
1158 Quince Ave.
Boulder, CO 80304 ph (303)-541-0244

Examples of Chicago Citation Style

The Chicago Manual of Style: The Essential Guide for Writers, Editors, and Publishers, 14th edition. ISBN# 0-226-10389-7, Chicago: University of Chicago Press, 1993.

Books:

Steiner, Rudolf. *The Philosophy of Freedom*, Hudson, NY: The Anthroposophic Press, 1989.

Journal Article:

Wilcox, Rhonda V. 1991, Rudolf Steiner: Seer for the Modern Age. *Studies in Popular Culture 13 (2): 53-65.*

Magazine Article:

Auer, Athur. 1998. Pine Hill as a Shining Example of Waldorf Education. *Education Weekly,* 2 December, 97.

Newspaper Article:

Pienning, Alicia. 1996. Waldorf Education: a Force for the Future. *Los Angeles Times*, 15 March, sec. A, p. 3.

Encyclopedia Article:

Reference books used as sources are not included in the Reference List but are cited in the text. Usually these sources are ten years or more out of date, so use with great caution. Examples:

In his article on history in the 1996 edition of the *Encyclopedia Americana*, Thomas Weiss examines the symptoms behind the scenes involved Western sources funding Lenin's secret train ride to Moscow, (*Encyclopedia Americana*, 1995 ed., sm. "history").

Book Article or Chapter

James, Nancy E. 1988. Two sides of paradise, The Eden myth. In *Spectrum of the fantastic*, edited by Donald Palumbo. Westport, CT: Greenwood.

ERIC Document

Fuss-Reineck, Marilyn. 1993, Sibling communication: Conflicts between brothers. Miami, FL: Speech Communication Association. ERIC, ED 364932.

Website

(Chicago follows the International Standards Organization documentation system)

Lynch, Tim. 1997. DS9 Trials and Tribbleations Review. In Psi Phi: *Bradley's Science Fiction Club* [online]. Peoria, IL: Bradley University, 1996 [cited 8 October 1997] Available from World Wide Web: < http://www.Pbradley.edu/campusorg/psiphi/DS9/ep/503r.html>.

Notes

- Arrange the items on your reference list **alphabetically by author,** interfiling books, articles, etc.
- Indent the second and following lines.
- If no author is given, start with the title and then the date
- **Websites:** Include the year you looked at it the date it was created or updated, and the full date you looked at it. Include the title of the web page, the name of the entire website, and the organization that posted it (these last two might be the same)
- The rules concerning a **title within a title are not** displayed here for purposes of clarity. See the printed version of the manual for details
- For documents and situations not listed here see the printed version of the manual or **Chicago's official website** for a list of frequently asked questions about **"Documentation."** and other aspects of Chicago style.

Books Which May Prove Helpful

General Research on Waldorf Education

Finser, Torin. *Research: Reflections and Suggestions for Teachers for Creating a Community of Research in Waldorf Schools*, Fair Oaks, CA: AWSNA Publications, 1995.

Essays and Books on Action Research

ABL Group. *Future Search Process Design*. Toronto: York University, 1997.

Bennett, C.K. (1994, Winter). Promoting teacher reflection through action research: What do teachers think? *Journal of Staff Development* 15(1), 34-38.

Calhoun, E.F. (1994). How to use action research in the self-renewing school. Alexandria, VA: *Association for Supervision and Curriculum Development.*

Ferrance, Eileen. *Action Research*, Providence, RI: Northeast and Islands Regional Educational Laboratory at Brown University, 2000.

Kelsay, K.L. (1991, Spring). When experience is the best teacher: The teacher as researcher. *Action in Teacher Education*, 13(1), 14-21.

Sagor, Richard. *Guiding School Improvement with Action Research*, Alex VA: ASCD. 2000. I

Schnorr, Donna and Painter, Diane D. *Partnering the University Field Experience Research Model with Action Research*, 1999.

Quantitative Research

Guba, E. and Lincoln, Y. *Effective Evaluation.* S. F. Jossey-Bass, 1981.

Lincoln, Y, and Guba, E. *Naturalistic Inquiry.* Beverly Hills, CA: Sage, 1985.

Longitudinal Research

Coleman, R.. *Longitudinal Data Analysis*, New York: Basic Books, 1981.

Hakim, C. *Research design. Strategies and Choices in the Design of Social Research*, London: Allen and Unwin, 1987.