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AN UNSOLICITED SOCIOTECHNICAL INTERVENTION IN A
PUBLIC SYSTEM: A PARTICIPATORY ACTION RESEARCH APPROACH

by

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B.A. June 1970, The City College of New York

A Dissertation submitted to the Faculty of Old Dominion
University in Partial Fulfillment of the
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DOCTOR OF PHILOSOPHY
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ABSTRACT

AN UNSOLICITED SOCIOTECHNICAL INTERVENTION IN A PUBLIC SYSTEM: A PARTICIPATORY ACTION RESEARCH APPROACH

Ely Alfred Dorsey Jr.
Old Dominion University, 1991
Director: Dr. Laurence D. Richards

This research concerns itself with Participatory Action Research in a hostile setting. The thrust is a sociotechnical one, with the intent being to enhance the capacity of the Wallop Public School System, Wallop, USA, to address its problem of racial disparate treatment of Black children. The potential for Organizational Learning among the school system's senior staff is studied. Some new theory about such hostile interventions is proposed. Also discussed are questions about reliability and construct validity within the context of the multiple role playing that an interventionist has in this setting. The role of the press is reflected in the intervention reporting. Some probes are also posed concerning the role of the technical skill level of participants in any sociotechnical intervention. Linear programming and traditional statistics are used to develop a measure of full racial integration and a pupil assignment model for racial balance.

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Finally, I wish to thank Mrs. Martha Joslin for her advice and editing assistance during the preparation of this document. I would also like to thank Mrs. Geraldine Dutton and Dr. Billie M. Reed for assisting in preparing the final manuscript.

PREFACE

I had no intention of writing a preface, but unseen circumstances brought this forth.

This research is about an unsolicited intervention in the school system of a small southern city suffering from the problems of racial discord. Because of the ethical and legal issues raised by my naive reporting on human subjects, I have had to change the names of all persons, places and organizations. I have also had to delete from my appendices, key historical documents, press clippings and memoranda that enrich this study. I have learned from this, and so have my colleagues and mentors. It was something that you may come to expect in such an unusual setting as unsolicited research intervention.

If I had to do it all over again, I wouldn't change much. Possibly, my role with ACTON, the civil rights organization that sponsored me in Wallop, USA. The questions raised about the ethics of human subject research when there is no clear contract to do such work are interesting. Certainly, journalists get into this issue all the time. But, applied mathematicians and scientists who are also human rights activists do not think of these things until it is upon them.

For the rest of this writing, all names of organizations, persons and places are fictitious, except those affiliated with Old Dominion University.

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CHAPTER ONE: Overview And Background

A. What Is To Follow

Participatory Action Research (PAR) has as its objective improvements in organizational productivity (Whyte, 1991).

PAR advocates the use of traditional interventionist tools of Sociotechnical Systems to bring about improvements in organizational productivity. These tools range from cost engineering to operations research to traditional organizational behavior study (Emery and Trist, 1975). Promotion of improvements in organizational productivity during the intervention can be seen as advocacy for double loop learning within the organization (Argyris and Schon, 1991). The research method is similar to Action Science in that objectivity is defined in terms of spiral validation paths (Elden and Levin, 1991) among the intervenor and the participants. I pose scientific detachment as one end of the Objectivity Continuum (Steier, 1991)¹. PAR, the other

¹In the Introduction to Research and Reflexivity, Steier reflects on the nature of what is knowable in relation to what is asked in a research construction. He implies that we use models of research in which we have a role in constructing, so that what we 'discover' is an extension of the model of research as well as a self-reflexive exercise in the design of the experiments we produce to gather data. The 'self' of the researcher is

end of the Continuum, argues that what is known comes from agreement among participants and intervenor in their roles as coresearchers. Agreement is possible since the intervenor is solicited by the participants for the intervenor's expertise. This research builds on the tradition of Sociotechnical systems and PAR; but is substantially different in that the coresearch understanding

between interventionist and participant is ambiguous due to always present in the research paradigm. The issue of objectivity becomes one of understanding the roles of tradition, utility and applicability. For example, mathematical or logical models of phenomena are accepted because they work in the worlds in which we constructed them to work. And we design experiments to remain within those worlds. Being reflexive, that is, "being conscious of ourselves as we see ourselves," brings into the dialogue the possibility of joining different models of research to the same phenomena, because the 'self' is not one model of insight nor discourse. The joining may be labeled as a degree of objectivity, or a phase along the Objectivity Continuum, seen through the 'self.' Treating objectivity this way encourages experiments to construct multiple models as a way to capture the complexity of the situation. For example, we may have fit a stream of data to a linear regression model and found that we were dissatisfied with the result. We may then have chosen a non-linear model with more acceptable results. A traditionalist would choose to reject the linear model; a self-reflexive researcher may chose to include the appeal of the linear model to the researcher, together with the accuracy of the non-linear one, as part of the context in which to discuss the studied phenomenon. This example is one of complexity since the simplicity of one unit of analysis or one model, or even several embedded in one category of analysis, is not sufficient. The researcher may invent one to pretend simplicity, but in the initial discourse, multiple units will be presented bound together by the 'self' of the researcher. As we get better at understanding how self-reflexive actions produce the language of our research, we will get better at categorizing different forms of objectivity. We should be able to say "this is differently objective than that," and have some practical way of knowing what this statement means.

the lack of a social contract for learning discovery. A goal of this research is to extend PAR to the domain of unsolicited intervention.

This research is about an intervention that was not solicited by the participants. I examine and report on what happened, what was reliable, and what may be doable in such a context.

B. What Led To This Study

B.1. Geopolitical Background

Wallop, USA is a small seaport city located in southeastern USA. It has a population of 103,907 by the 1990 Census. There are 53,212 Whites, 49,180 Blacks and 2879 Others living within its corporate boundary. The Rand McNally Commercial Atlas of 1988 designated Wallop as a Principal Business Center. Its 1986 per capita income was \$10,617, its median income was \$22,943 and its number of households was 39,200. It had an effective buying income in 1986 of \$1,183,747,000. Retail sales in 1986 were \$556,797,000. It is a city that depends on the military for a major part of its livelihood. It is not a poor city by any means. It is among the top ten in the state of USA. Its public school population in 1990-1991 was about 19,000, with a system wide racial breakout of 66% Black, 33% White and 1% Other. An estimated 4500 Wallop children attend

private schools. Of this 4500 figure, about 90% are White. Its 1980 population was 104,577. In 1986, it was estimated that its population would grow to 114,800 by 1991. It has lost about 1% of its population since 1980. Its political governance is by City Council. There are nine members elected to the Council in staggered terms every other year. They serve for three years. The School Board is appointed by the Council. The members on the School Board serve three years. The School Board and the City Council are by law separate governing bodies. Once a School Board member is appointed by the City Council, then that person is independent of the City Council.

Wallop is aggressively trying to attract new business. Its school system appears to be its biggest obstacle in this endeavor.

B.2. An Overview Of My Activist Role

On March 15, 1990, the School Board (Board) of the Wallop Public School System (WPSS) passed an Anti-Racial Segregation Resolution (Resolution), effectively affirming a commitment to full integration of WPSS, and ruling that neighborhood school plans and administrative choice proposals are racially divisive and segregationist. The Resolution also called for the full funding of any

integration effort necessary to bring about the intent of the Board.

The action of the Board was supported in part by an enrollment pattern analysis by race conducted by me of the WPSS for school census data published by the Board in October, 1989. There, one can see dissimilar concentrations of both the Black and White races across all WPSS attendance zones. For the purposes of this research, a concentration is a proportion of the total enrolled population by race attending a school. Since the WPSS does not have, nor it did have, over capacity problems, one expected very similar proportions of both races attending the same schools. The study of the October 1989 data revealed that this was far from the case. But the enrollment pattern analysis itself did not bring the Resolution to birth. The path to the Resolution's passage began much earlier in August, 1989.

In August, 1989, a mixed race group led by a prominent Wallop banker presented a white paper to the Board. The paper called for the introduction of neighborhood schools in the WPSS. In 1986, the School Board of Wallop's sister city, Sealane, USA adopted a neighborhood school plan. This plan resulted in the immediate creation of eleven elementary schools with Black populations of over ninety five percent (95%). The Sealane Plan, as it came to be called, served as the model for neighborhood school plans in over five hundred (500) school districts nationwide. Neighborhood school

plans modeled after the Sealane Plan are the legal anathema of integration. The Board appeared willing to accept recommendations from the mixed race group for a neighborhood school plan similar to the Sealane Plan.

In September, 1989, while attending a membership recruitment breakfast sponsored by the Wallop Chapter of the National Association for Action People (ACTON), I was approached by two officers of the chapter and asked if I would consider coming over to Wallop either to be their President or to head up their Legal Redress Committee. They had a backlog of discrimination cases and needed some leadership in the chapter over these matters. I agreed to accept the position of chair of the Legal Redress Committee in Wallop.

As an activist and Legal Redress Chairperson, I immediately began working on the backlog of cases. I also had great interest in the intended neighborhood school plan that was slated for Wallop. I had never forgotten the disappointment and anguish that the civil rights' community had felt when the Sealane Plan passed without challenge in 1986, and how then Justice Thurgood Marshal prevented the Rehnquist Supreme Court from ruling on the Sealane Plan. It was strongly felt that if the Rehnquist Court had ruled on the Sealane Plan, then we would be in a modern age of legalized segregation nation wide.

I devised a strategy to try to overturn the Sealane Plan by preventing that similar plan from gaining a foothold in Wallop. Using that success, I would try to rally Sealane citizens to move to rid themselves of the invidious Sealane Plan. This strategy was known only to me.

I did not share my thinking with anyone in the area. I began by organizing a group of Black citizens in Wallop to combat the intended neighborhood school plan (Plan) in Wallop. This was a secret group that was to act as a steering committee (Committee) for a community wide effort. I had help initially in this effort from the officers of the ACTON that first recruited me. But, I first received State ACTON authority to combat the Plan. I then organized the Committee Against Segregation (CAS) as a special subcommittee of both the Legal Redress and Education Committees of the Wallop Chapter. This was a public group. I then attempted to organize the community.

The first step here was to get the story told in such a way as to galvanize community support against the Plan. The Board was considering a facilities use study. I went to the Black press, The African Guide newspaper, and got them to run a story branding the Board's facilities study as no more than a scheme to bring back segregated schools. The Black press succeeded in getting the acting superintendent to admit that the Board was considering the Plan. With story in hand, I then confronted the White press, The

USAn-Pilot and Sky-Star, and asked them why they had not been on top of this issue. They responded with a very powerful story in which the Board's facilities plan was branded as a 'segregationist' plan. With this publicity, the local radio and television people became involved, and on the surface it appeared that we had the momentum we needed to galvanize the community.

In January of 1990, when celebrating Dr. Martin Luther King's birthday in Wallop, I succeeded in having Dr. Lenora Fulani, a presidential candidate from New York in 1988, as our keynote speaker. Furthermore, I managed, through the power of suggestion, to put a very nontraditional theme to the birthday celebration by having an African musical troupe accompany traditional gospel choirs. I also managed to get a Muslim minister to give the benediction at the end of the service. The one ingredient that was deliberately missing was a Black Baptist minister presiding over the ceremonies. We had White clergy, socialists, muslims, women, political candidates, poets and children as the center of the celebration. By all accounts, it was quite radical as these type of celebrations go.

At the celebration, I spoke using the story that ran in The African Guide as a focal piece. I used the fact that, in the story, the acting superintendent of WPSS had uttered the Board's intent to bring in the Plan. I called

for a community meeting at a local church for that following Monday.

When the Committee first met, I unveiled my strategy to set a legal audit showing that WPSS had intentions to violate the Fourteenth (14th) Amendment by deliberately bringing in a neighborhood school plan to provide a separate and inherently unequal school system for Blacks and Whites. The Committee approved of the scheme. It would involve putting forth in the face of statistical evidence a prointegration, anti-neighborhood schools resolution to be adopted by the Board. If the Board refused, then intent was easily proven. If they approved, then the Board would be bound by the resolution's codicils, and hence success was a win-win scenario. The key to stopping the Plan was a well informed Black citizenry. Thus, the initial organizing efforts by CAS were aimed at information sharing.

At the eventful Monday meeting after Dr. King's birthday, I put forth a scheme to organize the community under various coalitions: Women, Men, Clergy, Teens, Greeks, Lawyers, White Outreach, Link to Sealane, and Elected Officials. I sought to put someone in charge of every coalition. I thought that these coalitions would canvass the Black community and a unified effort would be forthcoming as a result of the information transference. CAS officially did not know of the legal strategy

established with the Committee. My thinking was to wait until the right moment to let the legal strategy be known.

While I was setting CAS in motion, I was also beginning to establish contacts with the Sealane Quality Education Coalition. This was a mostly Black rank and file group that led the fight in Sealane against the Sealane Plan back in 1986. They were led by Black ministers. I did not let them know of our legal strategy. I approached them from the point of seeking help from their experiences for our problem in Wallop. (It should be said at this point that there were members in CAS that were also in the Committee.)

I tried to assign different people to different coalitions. My assumption was that through such a structure, information could easily be disseminated and optimal community penetration attained. My thinking was to build up a core activist group that would be the front line in a mail, telephone and media assault on the Board and the City Council to bring attention and cooperation in our efforts to stop the Plan from succeeding in Wallop. Also, I saw this core group as the key to fund raising for legal and movement efforts, as these efforts called for attention. In the meantime, I had become a full time graduate student in Old Dominion University's Ph.D. program in Engineering Management (ODU). I solicited the department chairperson to support my community action efforts as community service. The intent was that ODU personnel not become defensive about

my actions as they became notable in the local press. I decided early to keep both the department chairperson and the dean of the engineering school informed of my activities. They both supported my involvement in Wallop.

During the early period, I was representing victims of discrimination in the area, and I was beginning to build a reputation as a person who could get things done for people if they needed help. I was frequently quoted in the local press and interviewed on television. I was becoming a local presence. I was also becoming quite involved in the study of Cybernetics and its relationships to Sociotechnical Systems. I had passed my advanced examinations and was searching for a dissertation subject. I was considering Complexity Theory.

Through a number of meetings and interactions with some of the Board members, the Committee and CAS merged. It was now February, 1990. It had been announced that the acting superintendent was soon to retire. Various Black and White candidates were considering election to the City Council. The Board was trying to bring forth its facilities plan. We went to Capital City to solicit support from the State ACTON Executive Board. This was mid-February. We were met with hostility and fear. This culminated in the State ACTON president going to both the Black and White local press and to the Board itself in an attempt to

discredit our efforts. The local press did not withdraw its coverage of our actions.

The Board was set to begin deliberations of its 1990-1991 budget in March, 1990. Support for our cause was eroding through a campaign of disinformation. Both Black and White rank and file citizens were beginning to speak against us. At this time, February, 1990, the chairperson of the Board announced his resignation from the Board. After he resigned and was replaced by a White female, the makeup of the Board was three Blacks and Six Whites. The City Council had a makeup of five Whites and two Blacks. The chairperson was White. The Board is not elected, but appointed by the City Council. The vacancy created an expectation that the Board seat would be filled by a Black citizen. On March 8th, CAS presented the Resolution for adoption to the eight member Board during a work session. The Board could not legally vote since it was a work session. We were confident of a close call, but we felt that a victory was ours no matter what the vote. On March 13th, the City Council appointed another White to fill the vacated seat. This person was the choice of the prominent banker that had floated the Plan to the Board in 1989. The community was outraged and so was the White press. It carried the story on its front page, thus the Capital City political community saw the story that day. On March 15th, 1990, after two votes, the Board passed the Resolution by a

5 to 4 vote. The sixth, and new, White Board member cast the deciding vote.

CAS decided to set up an oversight effort to monitor the Board's actions with respect to the Resolution. This success brought more trepidation from some of the rank and file Black and White citizens in Wallop. Furthermore, the State ACTON increased its attempts at discrediting our efforts by insisting that the Resolution was not sanctioned by them because every member of CAS was not an ACTON member. To get the Resolution in final form, we had ignored the State ACTON because of the treatment we had received in February, 1990. We had worked directly with the National ACTON office in Baltimore. The Resolution had National ACTON sanction.

During the semester while the Resolution was being drafted and presented, I was teaching Operations Research for ODU. I had twelve graduate engineering students. One of the group assignments that my students were required to complete involved designing a transportation pupil assignment problem for racial balance purposes. It was of the linear programming variety and similar to the Heckman and Taylor (1969) model. I struck upon the assignment since it was coincident with my interests. I had no other motive except curiosity to see how these models worked. As the time for the Resolution presentation drew near, I went to my class and asked them if they would consider taking on a

special project to develop a transportation assignment model for WPSS. The project would run during the Summer 1990, and would be their Capstone course. All Master level students in the Engineering Management program had to complete a Capstone course for graduation. The week before I had asked for and received permission from the department chairperson to propose this project to my students. My students enthusiastically agreed. I then set upon a course to present simultaneously the Resolution and a proposal to help implement the Resolution by providing the transportation assignment expertise to the Board, without charge. This latter proposal was called the Transportation Model Project (Project). The night of the Resolution, I presented the Project for Board adoption. I also presented my students. My thinking was to make it very difficult for the Board to turn down the Resolution because of the money needed for implementation. Normally, the study and preparation for such an endeavor would cost about \$125,000 in manpower alone. I offered the project to the Board as a gift from ODU. At the night of the Resolution adoption, the Board did not act on the Project.

During the rest of the Spring 1990, the community concentrated on the City Council elections. The school issue proved to be decisive: three White male Councilpersons were voted out of office and replaced with two Black males and a known progressive White male. This

meant that a progressive coalition had gained control of the City Council. The Board lost a progressive Black and a conservative chairperson. The progressive Black was elected to the City Council. The chair went to a Black male who was instrumental in getting the Resolution passed, also the White chair was replaced by another Black male. The Board was then comprised of four Blacks and five Whites. One of the Whites was a supporter of the Resolution. This new infrastructure was in place by the first week of July, 1990.

The ACTON kept up its activism in the community on matters such as employment discrimination and police brutality. I kept a relatively high profile in the press. A new superintendent, Dr. Richard Edison, was appointed in June, 1990, to take over the WPSS. I interacted with him in a cordial and detached way, making sure that he was aware of the Resolution and the ACTON's expectation for implementation.

CAS did not meet much during the Summer of 1990. We waited until the new superintendent was in place and confident of his office to begin any pressure on him. He was a White male and not the first choice of the Board. Nevertheless, he had excellent credentials and the community was rooting for him to succeed. We did not want to appear, nor were we interesting in appearing, confrontational. We had won the Resolution, so we were giving him orientation time before we went to him to begin talks on desegregation.

In October, 1990, the local custodians' union came to me for help with their union problems with the Board. USA is a 'right to work' state, meaning that no component of any governing body in USA could sign a contract with a labor union. But, it was possible to have memorandums of understanding between a union and a governing body. In July of 1990, Dr. Edison recommended to the Board that the memorandum of understanding between the custodians' union and the Board be rescinded. The Board agreed with the recommendation. The custodian's memorandum gave them a minor consideration with respect to redressing grievances. The union protested and came to me for help. The ACTON is bound by corporate charter to support organized labor. I went before the Board and pleaded the union's case. During this appearance, I also challenged the Board to respond to ODU's offer of assistance with their transportation desegregation efforts. At that meeting, the Board directed Dr. Edison to begin a formal relationship with ODU to investigate the transportation issue. Dr. Edison said that he had reviewed the proposed model submitted on March 15th, 1990, and had discounted its applicability. Nevertheless, the Board directed him to deal with ODU.

I was considering writing a dissertation in either complexity theory or logistics management. Both areas held great interest for me. I was investigating both for their suitability as engineering management research subjects. I

went to the Annual Operations Research Society of America meeting in Philadelphia in October. There I decided to pursue the possibility of making the Model my dissertation topic. I arrived at this decision for four reasons: first, the department had been encouraging doctoral students to write dissertations in familiar areas, such as job related projects; second, I had invested a considerable amount of time and energy in the Wallop school issue, so this project had a developmental basis; third, the idea of trying to help the Board solve its desegregation problems by embracing sociotechnical systems thinking appeared novel; and fourth, my research into the cybernetic nuances of complexity theory and logistics management was easily imported into a sociotechnical intervention project.

I began the Project with a meeting with the superintendent. This occurred in November, 1990. Present were representatives of WPSS, ODU and the ACTON. We agreed on the parameters of the study and the communication links among all three parties. I then wrote a concept paper on the Project for ODU in early December, 1990. I initially pursued the Model in a detached, traditional way. In January of 1991, I, together with the departmental chairperson at ODU, presented the Model to the Board. Our intention was to present the parameters of the transportation project and to clarify the expectations of both ODU and the Board. The role of the chairperson from

ODU was to offer official support for the Project from the university. Later that same month, I had a meeting with ACTON officials in my home. There it was decided that I would represent both ODU and the ACTON in the Project. I was adamantly opposed to this; but, the majority vote was against me. It was in that meeting that the formal framing of the Project into an activist-researcher-interventionist project began to take place.

B.3. My Decision To Change Roles From Activist To Interventionist.

B.3.a. Key Focal Points In My Decision

I saw the Project as an opportunity to establish a link between management science and political rule (Jackson, Keys and Cooper, 1989). I saw the possibility of developing a strategy for technocracy creation at a small city, village or hamlet level. I saw the desegregation issue as an avenue for bringing formal management science tools into the Board's decision making process.

B.3.b. The Organizational Culture Of The School Board

Observation of the Board and interviews with three Board members using the guidelines for choosing ethnographic informants found in Johnson, (1990) and Tremblay, (1957)

over the months preceding the passage of the Resolution gave me a sense of the organizational culture of the Board. USA public school law as it pertains to the behavior of Board members is very strict. The law expressly prohibits the meeting of more than two members on matters of school business without the meeting being approved by the entire Board. Violations of this law can lead to immediate removal from the Board. Board members are very sensitive about this matter and are quite careful in their daily conduct to avoid this impropriety. There is also a very restrictive information transfer and exchange practice within the Board's context: most discussions about school business take place in executive sessions away from the public. And, when there is public information exchange, it is restricted to oral (and/or written) testimony for five minutes duration. There is no mandate to engage in dialogue at Board meetings. This exchange constraint insulates the Board from reconsidering their policy development context; and new ideas have a difficult time being heard because information, and the mechanism for information transfer, is so structurally attenuated.

In Plate 1, we see the public's interchange with the Board first as a message to an individual Board member, who cannot discuss that exchange with more than one Board member at a time until there is an official meeting, and then testimony in the public meeting, restricted to five minutes

and to issues primarily on the preset agenda. This diagram also shows how the Board assesses the impact of a policy and its implementation.

The solid band around the School Board is made up of three distinct components: the citizenry, the press and the City Council. The Superintendent's Office penetrates the Board and is itself penetrated by the Operation of Secrets that governs the Board's business. Secrets can come from within or outside the Board. Any arrow drawn across a boundary means that penetration is possible. Any arrowhead, crossed by a line means that penetration has stopped at the line. In Wallop, television news has little impact, because in general, I assumed that television news is information poor. I assumed that radio is more effective because there is more information transmitted and more of an opportunity to exchange views with citizens. Finally, I assumed that the most effective medium of influence is the local newspaper. About 90% of the adult population in Wallop reads the Wallop Currents. The Currents is the magazine section of The USAn-Pilot and The Sky-Star, that appears three times a week in Wallop.

The double dotted line band around the Board is an absorbing, transforming operator. Within its boundaries, outside press or public commentary is absorbed and transformed into the language of the Board. These are represented by the small t's being spiralled back to the

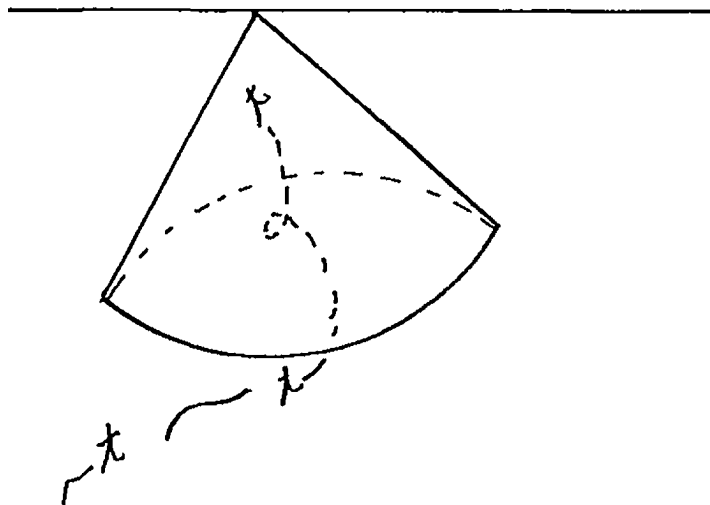
funnel shaped 'ear' of the board. The Board only hears its own language. When the Board speaks to the public or the press, its message is reflected back into itself. The Board does not penetrate any outside system. (See Plate 2.)

New ideas to and from the Board have four main routes:

1. Through the Superintendent's Office,
2. Through a Board member,
3. Through a combination of 1. and 2.,
4. Through the operation of secrets.

The chances of a new idea being received by a Board member at a public meeting, without any preparation for reception by the Board, are almost non-existent. Likewise, there is little chance of the Board communicating a new policy idea to the public at such a meeting.

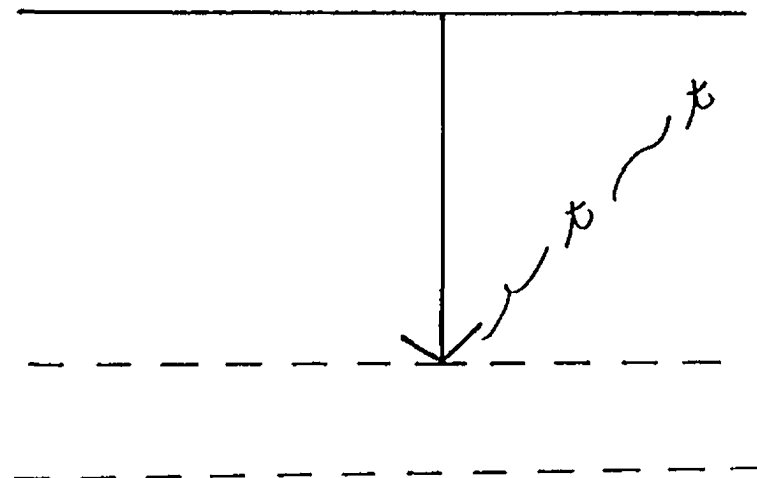
Kauffman (1987) speaks of the stability of a system resting on the notion of a form (a policy, its announcement and implementation) being fed back through and becoming invariant under its language transformation. Here, in the Board system, the action of transformation is a global renaming which must keep the system from being defined outside the language of the form. The language of the form is created at the time there is need to name the form. This occurs when an outside pressure comes to bear, calling for the naming of the form. The global renaming is really an absorbing operator. Learning here is of the Model I type (Argyris and Schon, 1978).



A 't'othon is an idea transformed into a familiar setting through the history of words used in the Operation of Secrets.

The transformation, T, of dialogue into 't'othons to be reconstituted within the Operation of Secrets paradigm of the Board is illustrated here.

PLATE TWO: The WPSS Cybernetic Ear



The Board's own pronouncements returning as 't'othons.

PLATE THREE: The WPSS Absorbing Operator

This is a closed dynamical system in the sense of Emery and Trist (1975). It is dynamic in that boundaries are always changing, but closed in that truth values are always self referential, although not reflexive. A failure, for example, is seen as an outside distortion to the internal policy development context. (This internal view, of course, goes untested by the Board.) I give an example.

The Board decided to build a new School B High School. The current School B High School is in serious need of repair, and replacement seemed to be the logical choice. The difficulty was that School B is primarily a White affluent community and that it had been the case through the Operation of Secrets that School B was getting more than its fair share of the public pie. Thus the question arose, why build the new high school in School B? The Board never answered this question publicly. It simply asked the City Council for the money and started building the new high school in a very affluent part of the School B community. Wallop did not need a new high school. It was already operating under capacity at the high school level. All the Board had to do was close the old School B and transfer those students to high schools in other parts of the city. When the rest of Wallop raised an outcry, the Board refused to engage in discussion. It simply ignored all cries of protest. At that time, neither the press nor the City Council protested the School B decision.

The culture of the Board is comprised of this protective band within its boundary and surrounding its boundary. The culture of the Board is the culture of the city of Wallop. And, what the culture protects the most is the undiscussible and its existence (Argyris and Schon, 1989), namely, the racial duality of its school system and the impact that this duality has on all facets of Wallop life.

B.3.c. The Theory Of The Transportation Model Project

What the Project was intended to do was to bring about racial balance at a minimum transportation cost. The Project first develops, on an aggregate level, the requisite racial balance numbers of pupils, by race, that must be bused from a particular population tract to a particular school. It does this while minimizing transportation cost. It then produces a schedule and a routing scheme to minimize transportation travel times (Desrouchers, 1988). Wallop is a small enough city so that this can be done in a relatively short period of time with minimum operating cost to their present structure. The Model lends itself to any specified racial balance that the Board determines as a policy. It also lends itself to any cost parameters. Transportation cost need not be the only decision parameter. It is also possible to entertain multiple goals with this type of

model. When this is the case, we are speaking of Goal Programming.

In Goal Programming, multiple goals are entertained by the decision makers and the mathematical scheme is to create an objective function composed of 'minimum from ideal' variables. For example, WPSS could easily cast its pupil assignment question as a combination of maximizing teacher time in service per grade per school, together with optimizing the Black and White ratio in a classroom, together with minimizing air conditioning costs per school. These goals can be entertained simultaneously. The value of Goal Programming is that it posits the sociotechnical intervention in a comfortable context; that is, there are many policy priority rating techniques with economical commercial software packages available that are user friendly. One such popular package is the Analytic Hierarchy Process (Saaty, 1990; Love, 1990; Harker and Vargas, 1990). It is easy to use, and it is economical. Using such an approach, Goal Programming with a Decision Support System, would reinforce Board member empowerment within a management science context. It would further enable a cybernetic mediation (Emery and Trist, 1975)²

²In the Appendix of Towards A Social Ecology, pp. 211-223, Emery and Trist delve into the mediating role that the technological component plays in sociotechnical intervention:

It [technological component] functions as one of the major boundary conditions of the social system

among Board members, senior school staff and the public. The thinking was that through such an approach, the Board would grow to establish internally a consistent criteria for policy implementation assessment. And then, it would communicate this criteria outside itself. Such a process would begin a consistency in communication: there would be one language of project evaluation and development.

of the enterprise in thus mediating between the ends of the enterprise and the external environment. (p.214)

CHAPTER TWO: The Research Context

A. Why I Chose Participatory Action Research (PAR) As My Research Model: How I Saw This Research.

I saw the sociotechnical intervention as a means of helping the Board set priorities for its policy initiatives in a consistent language which invited discourse from within and outside WPSS. Under such dialogue, I saw the opportunity for the evolution of an open system (Emery and Trist, 1975), where undiscussibles such as racial disparate treatment could be confronted, and double loop learning could take place (Argyris and Schon, 1978). To make all this happen, I had to wrap myself in and around WPSS in a way that would allow me to penetrate the daily management of WPSS and the Operation of Secrets³ that governed the Board.

³I alluded to the Operation of Secrets in Chapter One without delving into an operant description of it within the Board. I am doing so now because PAR research has this interweave quality that makes separation languaging useless. What I am saying is that to attempt to portray myself outside of my construction of the Board's culture is useless, because I am one of those persons that is outside the Board saying that the Board conducts its business in secret. There is no way that I could show that the Board conducted its business in secret because I do not have the means of making the definition of secret transferrable to the Board. So part of the Board's Operation of Secrets is the public inapproachability of the way(s) in which the Board conducts its business. This is quite similar to the

This research evolved into an embedded single case study design, where the primary unit of analysis was the Board, and the secondary embedded unit was the senior staff of the school superintendent (Staff). I had to penetrate the Board through the Staff. I could not go directly to the Board because the Board was too well insulated from public approach. To be effective with the Staff, and eventually with the Board, I had to do genuine research. Activism alone, that is, pushing only the cause of confronting the racially disparate theory-in-use, would render my voice suspect. But first, I needed to convince myself that such a role, activist-researcher-interventionist, was possible for me. I was able to do this after I explored Participatory Action Research (PAR).

A.1. My Construction Of The Theory Of PAR

Participatory Action Research is defined as that form of social science research in which some of the people in the organization or community being studied actively participate with the professional researcher throughout the self sealing learning that Argyris and Schon refer to in their classical work, Organizational Learning. What I do know is that, for the last two years, there has been little or no dialogue by the Board with anyone about anything, with the possible exception of the Staff. This lack of a public dialectic, I call secretive. Thus, the Board works through an Operation of Secrets because it does not engage nor support a public dialectic.

research process from initial design to the final presentation of events and discussion of the action implications (Whyte, 1991). The knowledge attained through PAR requires an intervention. This knowledge comes from the actions of the interventionist and the participant; but there is ambiguity as to when this begins in the intervention. I address this concern by conjecturing that the knowledge attained (by the interventionist) through PAR is provoked, thus the interventionist is a provocateur.⁴ The way to know what the participant has attained is to ask the participant what has been gained. This is possible when the intervention is solicited. When it is not, as in this case, other means have to be used. But first, we speak of the theoretical basis of PAR as it has been empirically established.

There are five key cases that are vying for the title of 'theoretical base' for PAR (Klingel and Martin, 1988):

- (1) The Xerox Case (1986)

⁴In Comparing PAR and Action Science, Whyte argues for the role of interventionist as something other than a detached observer:

As I see it, PAR focuses more heavily on social structures and processes. Without rejecting the value of preformed hypotheses, PAR is likely to depend more on what I call "creative surprises"-new ideas that arise unexpectedly during the intervention process. In PAR, it will be more difficult to arrange to have a detached observer to document the intervention process objectively and in detail...(p.83)

- (2) The FAGOR Case (1985)
- (3) The Merchant Shipping Case (1977)
- (4) The Trico Case (1985)
- (5) The Harrison Case (1984)

The FAGOR and Merchant Shipping cases are discussed in Whyte (1989).

We use Yin's 1989 approach to establishing this collection as a basis of PAR theory.⁵ The argument for improvement in organizational productivity as a function of participation (organizational learning) is made in this collection of cases. This functional paradigm is what supports PAR as a new theory. That is, the theory of PAR is that a sociotechnical intervention of the participant

⁵Yin (1991) says:

A common complaint about case studies is that it is difficult to generalize from one case to another. Thus analysts fall into the trap of trying to select a "representative" case or set of cases. Yet no set or cases, no matter how large, is likely to deal with the complaint.

The problem lies in the very notion of generalizing to other case studies. Instead an analyst should try to generalize findings to "theory," analogous to the way a scientist generalizes from experimental results to theory (p 44).

The construction then is simply to take these cases and see where common findings can lead to a theory of how PAR works. I have done this, first formally, here in Chapter Two, then in my modifications of the sociotechnical intervention model; I introduce a communication sieve to replace a key medium of PAR as it has been practiced in management labor issues. So to speak, this dissertation entertains another use of PAR outside of commodity or cost issues.

interventionist type improves organizational productivity, i.e., organizational learning as a function of participation. These five base cases demonstrate this theory empirically by either saving jobs or increasing physical production, while simultaneously reconstructing the relationships between management and labor. These reconstructions are of the Model II (Argyris and Schon, 1978) learning type. What I did to put PAR theory to use for my intervention in Wallop was to make organizational learning itself the control variable in my experimental design. I did not look for improvements in learning per se; instead I looked at the potential for learning. The reason for this was that I was not invited to help the WPSS. They had no participant interventionist contract with me. I describe what I mean by potential for learning later in this chapter. But let us continue with my construction of 'traditional' PAR theory.

What happens in all these five cases is that there is a crisis, to which a call for help is made. Usually, a labor management consultant group, or an established consultant responds. In the FAGOR case in Mondragon, Spain, Whyte himself had direct involvement. The interventionist was Jose Santos (Santos, 1991). The PAR procedure is then to help the participants and the interventionist design a CST to serve as the form for learning to learn how to respond to crises. A CST is either a Cost Study Team or a

Commodity Study Team. That is, within the five cases, this is what the CST turns out to be. The CST is the vehicle by which learning models are transformed to learning to learn models. It is where the theory-in-use versus the theory-espoused is explicated.

What is used in the CST is Cost Engineering and Operations Research as a technology set to mediate new learning. Cooper and Kaplan (1988):

Managers in companies selling multiple products are making important decisions about pricing, product mix, and process technology based on distorted cost information. What's worse, alternative information rarely exists to alert these managers that the product costs are badly flawed. Most companies detect the problems only after their competitiveness and profitability have deteriorated (p 96).

PAR uses this cost knowledge about the culture of most business organizations to create models for success. That is, nearly every company with a crisis could use some help in efficiently understanding their cost structure. Through this understanding there is a good chance that the crisis in question becomes more manageable. What happens is that you are able to offer the cost efficiency incentive as a lure to double loop learning. It acts as a carrot to drive the mule.

The ethics of PAR rest on the democratization of work (Elden and Levin, 1991). There are dilemmas, namely the dichotomy between interventionist control and participant coresearch. PAR wants as many participants as possible to

codefine the research paradigm with the interventionist, yet it is recognized that the interventionist also has an agenda. I investigate this from an epistemological path.

A.2. Cybernetic Impressions

The knowledge produced by PAR is driven by the interventionist and the participants. Its ownership is interwoven between both so that a distinction of role is not possible, except in a temporal sense; that is, first there is the interventionist, then the intervention, then the participants. The intervention is continually recast in usefulness until the original interventionist detaches. This detachment is the result of an evolutionary process for the interventionist. It takes different forms (Taylor, 1991). And, it may never really end (Stebbins, 1991). Nevertheless, this is the generic difference between the interventionist and the participant. Namely, the interventionist intervenes with a system because the interventionist seeks to intervene: that is, the interventionist is part of an interventionist system. The participants are part of another system into which the interventionist unfolds. What distinguishes the reaction of the participants to the interventionist's unfolding is the detachment of the interventionist from the participant system.

Knowledge is created by the action of a system unfolding into another system and in the 'join' first recognizing identity, then naming the 'join' by assigning a degree of blending to the 'join.' Data arises from the degree of blending, that is, from the awareness of the interventionist and the participant to the research project. You would call this awareness, knowledge. ANOVA studies in Statistics are an example of an explanation of the 'join.'

The operant word to use for identity is 'folding.' Identity implies a 'whole' and the 'being' of a system implies that a 'whole' thing can unfold: that is, it has the power to unfold itself because it, the system, exists by its own volition. This immediately raises challenges of all sorts: thus, look at this as you would the Identity Axiom of First Order Logic:

'For all models of set theory, an object is
itself.'

I am saying that systems are identified by a boundary, by axiom. How they behave is a matter of research which yields empirical as well as non-empirical data impressions.

The recognition that a system is capable of unfolding is a characterization of all systems possessing autopoiesis. The problem is with the use of the word 'all.'

The interventionist needs to intervene as a matter of course. The participant needs to reshape the participant system in reaction to the interventionist's unfolding. On a

local theory level (Elden and Levin, 1991), the participant system remains; reshaped, but it remains. On a global level, both systems are interventionist systems; that is, both unfold into each other. Since knowledge requires a distinction, then at the global level there is no knowledge, because there, there are no means of drawing a distinction. If there were, then one could speak of a system of all systems separate from any system. Our current knowledge prevents us from imagining such a juxtaposition.

A local view is one where participants are enclosed in a system by a boundary. It does not matter that the boundary is elusive. What matters is that systems are identified for the convenience of naming them. Research, that is, creating new distinctions, is possible here because the notion of difference is possible: one is able to say, "this is different than before the intervention."

A.3 How PAR Lends Itself To Multiple Role Playing

Argyris and Schon (1991) criticize PAR's paradigm. They argue that PAR interventionists are leaving out or ignoring the influence of key defensive strategies on the organization's tolerance for the intervention, as well as, the constraints on the participation. They feel that the interventionists are too fuzzy on what is actually taking place. They ask that PAR practitioners address the

construct validity and reliability issues that are common place to any such participant observation research. They focus on the famous Xerox case :

In our own research, we find that whenever undiscussibles exist, their existence is also undiscussible....Lazes [Lazes, 1984] could apply genuine pressure on all sides because there was a crisis that no one could deny. But...there is little reason to expect that changes effected in anticipation of a crisis would endure for very long beyond that crisis (p 95).

I, as an ACTON official, naturally keep up with major employment discrimination cases. One such case was the age discrimination case filed on behalf of approximately 25,000 middle managers against the Xerox Corporation. Xerox had fired these men and women, and replaced them with much younger middle managers, all within one year. This occurred while Lazes was intervening with Xerox management and labor to save 180 skilled labor jobs. One is tempted to look at the Lazes intervention's success with some skepticism. This is not discussed by either Lazes (1984) or Whyte (1991). It is this criticism by Argyris and Schon that led me to my construction of PAR.

I saw the issue of construct validity in PAR through the domain of the interventionist self-reflection. That is, in all these theoretical base cases, the nature of the interventionist solicitation and the impact of top management's hidden agenda were not discussed. In the FAGOR case, participant witnessing to new learning was absent from the case study report.

This suggested to me that an 'operation of secrets' was present in most cases. Xerox and FAGOR, we have already discussed. In the Trico case in New York state, even after a successful intervention showed top management that it was cheaper and more efficient to remain in New York, Trico still moved its plant from New York. In the Harrison case, it appears that General Motors is simply tolerating the intervention because it does not conflict with top management organizational control of culture. The Merchant Shipping case is reported by Walton and Gaffney (1991), as an ideal PAR study. It entails a time period of approximately twenty years. And, it is still ongoing. One has to wonder how emerging cultures impacted on the success of this intervention. This is not well discussed, nor documented. Also the detachment of the authors does not appear focused. Success is defined as the democratization of work for the profitable salvation of the shipping industry. It is a study that is so vast, involving many countries and companies, that one will find it difficult to see precisely what is going on and what has happened to the 'participant' system. It is included in the collection of cases to demonstrate that PAR can be used on a very large scale.

So fuzziness about how an interventionist was invited into the participant system, undiscussibles and their undiscussibility, and vagueness and contradictions (Elden

and Levin, 1991) about the roles of interventionist and participant seem to be part of the PAR construct. These ambiguities do not discredit PAR, on the contrary, they add to its richness. They seem to suggest that an interventionist has multiple roles in an intervention. Firstly, the interventionist is an activist with an activist agenda. This person seeks to bring about double loop learning within the system that provided the invitation because this person sees that double loop learning is a 'good' thing. The interventionist has made a moral and ethical judgment to bring a better world to the participant system. Secondly, the interventionist respects the undiscussibility of undiscussibles of top management in order to protect any success in double loop learning that is taking place. This protection is seen through how the case study is reported to the scientific community. Thus the interventionist is an agent in the 'operation of secrets.' Reliability, as we know it, is significantly hampered by the power of needing to be invited again some where (Whyte, 1991). Thus, the reporting of the interventionist yields models of intervention, together with clues to what may happen if the models are replicated. As a researcher, the interventionist is a semicovert reporter to the scientific community giving these clues as a path to reliability. Finally, the interventionist is a herald of the value of sociotechnical systems thinking. It is here that the

inducement to double loop learning has its best opportunity. Technology is the mediator of systemic change (Emery and Trist, 1975).

In summary, the interventionist is an activist, protector, researcher and technologist. Thus, the role as an activist is quite natural in PAR; what is left unsettled is how to reconcile the other roles without having an interventionist/participant social contract for learning discovery.

My first run at this reconciliation incorporates my sense that construct validity can be perceived through the interventionist's self-reflection as a medium to the interweave between the interventionist and the participant. Reconciliation of roles, then has to be tested as a local theory. Thus, I approached my self-reflection on the Wallop case as if I were an invited interventionist. Chapter Three will discuss how the different roles reflected upon the intervention.

A.4. Some Initial Discoveries

The presentation to the Board about the scope of the Project took place on November 8th, 1990. Within two weeks, the three parties, ODU, ACTON and WPSS, met and discussed how to proceed with the development of the Project. I, together with my student, met with Staff during November and

early December to begin ascertaining a work plan to bring the Project to completion. What I discovered in these first meetings was that WPSS did not do cost accounting, nor did it have on board an active programmatic research effort. It had two secretaries that kept track of the academic test data from year to year; but it had neither an instructional programs research director nor a cost accountant on staff. Furthermore, the Board had not given the Staff a direction in either of these areas, nor had the Board called for test data by race in the past three years. Staff's accounting treatments of cost were predicated on a funded account approach. Namely, WPSS received its money from local, state and federal sources. Its accounting requirements were line item and not tied to the cost of any operation except in broad aggregate terms. This is the typical accounting system that responds to legislatures (Burry, 1982). Cost accounting was essential for a goal programming model to work. That is, one needs meaningful cost parameter data to drive the multiple objectives in a goal programming model. The initial questions that I posed to Staff were,

"What is the average cost per third grader at Parkview Elementary School? How does this compare to the same statistic at Douglas Park Elementary? Can this cost be broken down into Transportation and Other Than Transportation Elements?"

Staff did not know the answers, nor did they know how to get them. Furthermore, I discovered that there did not exist a consistent format for instructional program appraisal and

evaluation. Thus, the notion of cost benefit analysis was foreign to Staff. Given my initial observations of the Board, I also knew that cost benefit analysis languaging was not practiced by its members.

B. The First Modification Of The Sociotechnical Model

I decided on two objectives with respect to the sociotechnical intervention:

1. To help the Board reexamine the data they have about their system to provide new perspectives and insights (Argyris and Schon, 1978).
2. To help orient the Board to policy development within a management science environment.

The Board currently uses experience and enhanced data to generate policies. While it is a much protected characteristic of our political system to have no artificial encumbrance to our system of governance, it is still valuable to have scientific tools to aid the implementation of policies. Stochastic and deterministic educational models, as aids in developing refined information for educational planning purposes, are quite valuable (Correa, 1975). Since people either elected or appointed to develop educational governance policy must also approve and develop educational plans for their systems, they stand to be the

beneficiaries of any tools that produce refined system information.

I call the Board's policy development system a First Order Policy Approximation (FOPA). Since the Board does not have a measurable, error minimizing tool to implement its First Order Policy Approximation, I call its implementation action plan process a Second Order Guess. Such a system, I characterize as risk-rich, or RR. If the WPSS had an error minimizing tool to implement its policies, I would call it risk-poor or RP.

The difficulty with RR systems is that measurable standards of success or failure are amorphous and cyclic within the languaging of the FOPA. An RR system guesses at the need for a new policy only by perceiving outside disturbances. These are perceived within the naming, which is an internal function of the system. The system, while naming the policy need created by the disturbances, moves to stabilize itself by naming the disturbance within itself. This naming transforms the disturbance within itself. Or as we indicated in Plates 1 and 2, the Board forms new boundaries through absorption. The statements of the Superintendent and the Chairperson of the Board illustrate the absorption process. The transformation produces a subject of cognition that is known within the system, yet perceived amorphously outside the system. Since the disturbance is absorbed, how to know it internally with

respect to the policy that it will yield, is only known internally. Outside the system is seen changing shadows that outsiders must connect to (name) the original disturbance that they , the outsiders, author. When judgments about effectiveness are called for, the system does not reveal its criteria because it can not. That is, internal cognition is also respectful of internal stability. To produce an external criteria would be to unfold. To unfold would be to be external; but, the naming of the disturbance mandates that it be seen only internally. Hence, to unfold would be to destabilize. This action would destroy knowledge as knowledge is known. Thus in the form, namely the announcement of the policy that is to be implemented, is language that preserves internal stability. (See Plates 1 and 2.) Outsiders can only react with new disturbances. These new disturbances recreate the need for internal stability; and it becomes a matter of course that actions of these RR systems cycle continually. Distinctions cannot be drawn from outside the system about the system, upon the system, and recognized by the system (Nagel and Newman, 1974)⁶

⁶Nagel and Newman, Godel's Proof, discuss one of the great contributions to the process of science made by Kurt Godel. He showed that the set logical system, 'Arithmetic' had associated with it, certain questions that were inherently undecidable within the construct of 'Arithmetic.' By this discovery, he showed that certain closed systems could be internally perturbed from outside those systems in such a way that the closed systems could not resolve the perturbation. I take this to learning theory, and postulate

In summary, this closed system continually justifies itself to itself only. It creates its language of form, that is, its language of policy, announcement and implementation, when outside disturbances call upon it to do so. It is a locked Model I learning system (Argyris, 1990).

Recently, at a public Board meeting, February 2, 1991, the current superintendent presented a proposed budget for the 1990-1991 school year. His plan called for an expectation of revenue reduction for the WPSS for 1991-1992. He presented a plan that also called for the firing of remedial education teachers and for some modest increase in teacher salaries across the board. His presentation did not mention nor discuss instruction. He spend some time arranging for public comment on a new facilities study that called for new construction of physical plant.

An RR system is vulnerable to disruption, usually of an outside system political source, without the standards of

that the inability of a closed system to resolve an outside defined perturbation is in effect, the inability of a closed system to recognize the perturbation from within itself. I am saying that Godel's work established a frame of a Model I system in a mathematically logic setting.

Extending this to the Board internally establishing decision and policy assessment criteria for a public dialectic, is equivalent to deciding an undecidable question within a closed system that precludes such an action.

Of course, school boards are not nice confined elements in a logical set theory, but are composed of human beings and human processes; thus, I caution that we use the Godel deductive metaphor as a path to a map about a closed sytem. But, it is also clear to me that a rigidly closed system acts similarly to an 'Arithmetic' sytem. To ask the Board how it is communciating with the public is asking the Board an undecidable question within the Board.

that source being subject to review against an internal body standard. At the meeting referred to above, there was a group of mainly working class, White citizens and students, calling themselves the 'Save School A Coalition.' They were there to protest the proposed closing of School A High School, which was part of the new facilities plan being proposed by the superintendent. Fourteen people spoke in favor of retaining the school. No one spoke against the school. Of the fourteen that spoke, five inferred anti-crosstown busing sentiments. The informational result of the meeting was that the Board had some feel for opposition to the closing of School A; the School A group felt vindicated since they had drawn first blood. Both groups were posed for conflict, and neither group understood each other, nor were they aware that they had not exchanged standards of resolution. If there is a victory for either group, it will be a secret, since neither group knows how to interpret the other on the other's terms.

Operational staffs of such RR systems become accustomed to the nebulous and translucent behavior of the political bodies, and eventually develop internal measuring standards as a reaction to the alienation that such an amorphous environment grows. These internal standards are held secretly by staff; but they compete against the political body's standards for the dominance of policy implementation language. The range of consequences of this

competition is from quiet self-righteous affirmation to public disagreements by the chief policy administrator. Furthermore, RR systems have low staff morale as a consequence of the ambiguity of success criteria (Brett and Hammer, 1982). And, this is the case in the WPSS as I have observed.

The Staff never knows what is expected from the Board from a qualitative standpoint. They do not know how much data refinement the Board wants, how much policy development research the Board needs, nor what the Board requires with respect to information on the WPSS. There is an overburdened dependency upon the superintendent's interpretation of the internal naming process that the Board practices. The Staff has created its own stability by responding mainly to state accounting requirements and minimizing data refinements that they know the Board can use.

In February, 1990, one month after the news articles appeared accusing the Board of harboring a plan to resegregate schools, the acting superintendent let to bid a proposal for transportation software that would have reduced the transportation task in WPSS by an order of magnitude. EDULOG, the industry leader, came in with the winning bid of \$17,000. Somehow this was rendered too high, and the acting superintendent killed the project. It was well known that the project would have cost justified itself in the first

year alone. With the project dead, the operations staff stopped pursuing a grant from the state that could have paid for this software. The project died because the 'secret' agenda was in control. But, more of this in Chapter Three.

New political elections do not seem to change the morale problem. You still have a Model I system, no matter who is in office or who sits on the Board. In Wallop, where a new, more progressive City Council was elected to office in July, 1990 new changes were also made on the Board. Informal interviews were conducted before and after the elections and changes. Staff did not perceive anything new, nor expected anything different. Staff's skepticism has shown itself to be truer than not. Morale is still low.

An aside observation is that nearly everything in Wallop is conducted in semi-secrecy. This shroud like atmosphere extends to many civic organizations and groups in the city. There seems to be a rule in the city: never let the other person know what you are thinking! Hidden agendas seem to dominate the day. I arrived at this conclusion through the informal interviews that I have conducted and my observations of the local government and civic associations. What is intriguing is that people do not seem to talk with each other in a dialogic or conversational way. There is no dialectic present. People seem to say very shallow things in public meetings, then plan to meet in secret to really talk about what they want. I have been privy to some of these

private meetings and I find that people do not say what they mean there either. It is a very closed city.

Another difficulty is that the RR system is unaware of the impact its policies will have on its sphere of influence. The resultant measuring rod is usually an outside political reaction or disruption producing language that either coincides with the FOPA or challenges it. Coincidence is seen as success, challenge as failure. It is this coincident constraint that classifies an RR system as a closed system, even though its amorphous behavior presents a false flexibility.

In Wallop, the Black community holds the preservation of School C very dear to its heart. For at least ten years, the Board has tried to raze this school in opposition to the Black community. It has not mattered if the Board has had a Black majority or not; its position has been consistent. Yet at every instance, regardless of the political juxtaposition, the Board called for community input to its decisions on facility use. The Board is not cognizant of the impact of its continued calling for the end of School C. It does not know that the community at large questions the Board's credibility in all issues because of this preoccupation with School C. Connected to this issue is the School B High School issue. Both issues have no justification in cost or instruction improvement, yet the Board appears wedded to them both. The most recent twist to

this saga is the proposed building of a new School C on the current site of School C. This was part of the new superintendent's budget proposal to City Council. While it is a different twist, it is the same old self sealing system. The error of instructional program omission is not being recognized by the Board, and the prospect of a substantial increase in property taxes to pay for this new construction is going to guarantee community tension for many years to come. And, it is unnecessary. I proposed that the new School B High School be named School C and operated in that tradition. The current School C could easily be converted to a community center with adult and continuing education functions. Something which is much needed in the Black community. You would not have to build a new school, the Black community could have the flagship of the WPSS, taxes would stay down, Black and White activist citizens would compete for leadership in the new School C, thereby producing the much needed public dialectic between the races, and everybody could take credit for the solution. Closed systems cannot listen to new information about undetected errors. (See Footnote 6.)

Systemic self-fulfilling prophecies become blurring covers of confusion and distrust when a distinction cannot be drawn that is both within and outside a system. The role of a distinction is not the preservation of internal stability, but the identification of an unfolding of a

system into another system so that knowledge is created with a new naming (Brown, 1972).⁷ Namings are always possible, including rigid closed namings reproducing themselves pretending to name a new imbedding (Freire, 1972). The knowledge gained here, in this rigid context, is the knowledge of exclusion. Richer new namings are understood in that change occurs through exchange. Identity is preserved as long as it is useful. It is not possessed as criterion for creating new distinctions. It is not to be seen as a Newtonian unaccelerated frame, but as the need for a frame at a point in time when a frame is needed. Recall the Identity Axiom.

The risk poor system has the advantage of knowing that policy implementation is error minimized within an agreed to context. It produces a guidance for operational and support staff and a language for consensus that is consistent within the agreed to context. It provides a reasonable and analytical way to exchange perception with outside systems

⁷Spencer Brown wrote, The Laws of Form, partially in response to anomalies that Bertrand Russel posed about self referential questions. Brown was concerned about eliminating the problem of paradoxes that naturally arise with the loose use of 'all' statments, or ambiguous statments that are posed with the self referential use of declarative modifiers in sentences. Brown makes axioms operant. He gives them a life, but without substance. His key meta axiom is that there is an axiom,

'Draw a distinction.'

Another way to pose this axiom is,

'Name something.'

(Johnson and Ward, 1971). Its fault is also rigidity, in that, once a context is agreed to, there is a reluctance to change that context. Unfortunately, this is desired by management scientists and operation researchers (Churchman, 1965; Cole, 1991). There is also the problem of continuity. Political bodies are temporal. From time to time, different players will enter the RP or RR system. Some will have little or no experience with the context. What usually occurs then is a context orientation by and for the new player. In an RR system, this means acquiescence to the system. In an RP system, old players have the opportunity to see the impressions and reactions of the new players to the current context. It affords a chance to reexamine and revise the current context. If properly exercised, this partial change of guard becomes a good control system, with the new player playing the role of input to the homeostat.

The advantage of RP systems is that muddled internal namings can be judged against perceived outside criteria in way that both internal and external systems can agree and communicate on. The amorphous communication characteristics of the RR system is absent (Cole, 1991). No matter how the internal body develops a policy, it will be judged in implementation by all with the same set of rules. Also the existence of an implementation tool tends to influence the internal body in how it develops policy (Whyte, 1991).

There is a movement away from secrecy and towards open negotiations (Broad, 1991).

C. My Intervention Strategy

I decided to intervene with the WPSS and help bring about an RP system. My strategy was:

1. First, I wanted to induce the Staff to see the need for reexamination of system data as I designed the Transportation Model needed to bring about racial desegregation. I planned to do this by pointing out the inadequacy of their data resources together with the benefits that enriched data could yield. For example, I planned to show the Staff what the standardized test scores and instructional cost data by race and by school could show.
2. Then, I wanted to create a Cost Engineering and Instructional Program Assessment Team (CST) with membership open to Board members. The CST would have the following targets or goals:
 - a. To determine how much instructional programs cost;
 - b. To determine how to evaluate an instructional program;
 - c. To determine how to map cost to evaluation (Schmid, 1989);

- d. To determine how to use the information so derived in planning (Mood, 1978);
 - e. To determine how to integrate the information so derived in daily system operations and site management (Walton and Gaffney, 1991);
 - f. To determine how to integrate the public into this process (Johnson and Ward, 1972); and
 - g. To establish an ongoing redefinition process of appraisal and self appraisal (Elden and Levin, 1991).
3. Next, I wanted to induce the CST to act as persuaders to the rest of the Board for sociotechnical systems thinking.
 4. I had then intended to develop an orientation to management science and decision making package for the Board, together with practicums using current data of the WPSS. This I wanted to do with the CST.
 5. The final product would have been a negotiations practicum package for the Board using management science tools. This again would have been developed with the CST.

I had other ideas such as an electronic mail system for Board members at their homes connected to the WPSS, and the formal retraining of Staff in the future; but, I decided to let these rest until the intervention gained momentum. The main thrust was to bring about some double loop learning with the technology factor being the mediator for change

(Emery and Trist, 1975). Of course, my research design was problematic.

D. My Research Design: An Embedded Single Case Study

I have already discussed the lack of a social contract between me, the interventionist, and the WPSS for learning discovery. This led me to use this traditional intervention strategy as a data gathering instrument itself. That is, I posed myself within myself to gather reactions to the intervention similar to a context where a social contract existed. I prepared myself to play it straight. That is, I went about the intervention as if we had a social contract, then when surprises (Whyte, 1991) occurred, I cast them into the collection of results that I labeled Unsolicited Intervention Activist Research (UIAR). I define a surprise as an unexpected reaction to contractual behavior. For example, I certainly would expect an attempt at an answer if I asked one of Staff; a passive-aggressive, non-response would be a surprise. Another surprise would be no response to memoranda from either the Board or the Superintendent sent to them.

Thus my research design seeks to capture how Staff reacts to the intervention from a perspective of learning, and then, to see how the Board reacts to a similar inducement.

My data gathering instruments are shaped by the literature search on PAR referred to in Section A.1.

Particularly, in a PAR project:

Interventionists are invited under a secret agenda.

Intervention is successful in terms of the form of communication of success of the intervention.

Quantitative measurements of success are just as robust as qualitative ones; hence they are complementary.

Because of secret agendas, the effects of the intervention include the maintenance of participant stasis, while producing external appearances of reshaping.

Knowledge is the result of interventionist provocation.

My data gathering instruments are field notes, ethnographic interviews, memoranda to and from WPSS questionnaires, newspaper articles, reports to the Board, and other memoranda. These instruments are used to poke the WPSS and report on the reaction, and also to poke myself to see myself as I see the WPSS intervention. The results of this intervention are reported in Chapter Three.

CHAPTER THREE: What Happened, What I Discovered?

A. The Discipline Of This Report

I am going to report on my attempt to bring into fruition a PAR sociotechnical intervention in the WPSS. I will use the case study analytic techniques of explanation-building and time series (Yin, 1989). The time series component will be of the chronological sequence reporting type. In my reporting, I will be struggling with the multiple roles that I played in this intervention. Sometimes I will be able to appear as a traditional researcher, reporting experimental results. Sometimes I will be arguing for a platform and calling it research. I say these things now because I have begun to let myself feel and understand what these last two years have meant to my life and how I see the process of science. This is coming to the surface in me as I write this report. It is not possible for me to be detached from my experience. I am in an interwoven state with the intervention. It is this unfolding that serves as the basis for my local theory of the intervention in the WPSS.

B. The First Stages Of The Intervention

I wanted to see how the Staff saw itself. The vehicle of inquiry was the development of the Transportation Model that we, ODU, had agreed to deliver to the WPSS. In the beginning, we met with the Operations and Business Affairs directors, Messrs. Byrd and White, respectively. The ODU team comprised of myself, my student and the chairman of Engineering Management at ODU. Present also was the superintendent, Dr. Edison. We agreed to have an extensive inquiry into the cost issues surrounding the Model. We also agreed to induce the Board to participate fully in this intervention. All agreed to this on January 28, 1991. Everything appeared normal as these interventions go. The familiarization stage of PAR appeared on schedule (Gubrium, 1991). Dr. Edison had written to ODU as early as December 21, 1990, assuring cooperation and a path to the data that we would need. The January 28, 1991, meeting was a first run reflection on the scope of the project. It was here that the notion of cost benefit analysis was first introduced to the superintendent. I wanted him to see why it made sense. I used the analogy of looking at a school building as a car plant producing different car models. This I mapped to different grades in a school building. I posed the question referred to in Chapter Two within the context of need, given the facilities study that the WPSS

was currently studying. I was able to show that if you changed facilities then you also changed the marginal cost of instruction per grade. Furthermore, one had to consider the question of overall impact on cost for such an infrastructure change. The WPSS is a revenue funded entity. As such, it has rarely, if at all, considered the issue of marginal cost for instruction.

During this meeting, accounting discrepancies were freely reported and inquiries about the future cost of a cost benefit operation were surfaced. I responded by stating that I did not know of the future cost, but that I would prepare a manning study if necessary as data for future budgetary considerations. It was understood that I would deliver the finished project sometime in May, 1991.

I also knew that the Supreme Court ruling in 'Board of Education of Oklahoma City v. Dowell, et al.,' was on the minds of the WPSS. (The news story, January 16, 1991, was in all the papers, and reporters had called and received comments from the WPSS about its feelings on this issue). This ruling called for a test of the elimination of the last vestiges of segregation as far as practicable, in order to judge if a school district required further court supervision with respect to school desegregation. Naturally, a well designed cost benefit accounting system could shed much light on any such question to the WPSS.

During this meeting, the superintendent agreed to support my access to the Board and the Staff. The nature of the access to both the Board and Staff was not precisely made clear. It was stated that the Model could not be presented to the Board without the Board being prepared to receive it. Furthermore, the superintendent added that he expected some statistical inquiry into the relationship of school performance by race to feed the concluding scenarios of the Model. At this time, I felt that the dialogue was moving at a good pace and that any questions could be clarified through memoranda or the like. This is what I did in writing my scope statement in February 10, 1991. In my memorandum, I summarized the January 28 meeting from the ODU point of view and included with that memorandum two papers that would serve as the literature base for the Model (Lee and Moore, 1978; Kaplan and Cooper, 1988). The first paper was on goal programming in developing a pupil transportation model for school desegregation. The second paper was on cost accounting issues that a complex firm needed to face in the current business world. Both papers were seen by me as conversational media for building a CST. The memorandum was written to Dr. Richards with a cover memorandum from Dr. Richards to Dr. Edison. It was in effect how the ODU chairman saw the mutually agreed on arrangement with the WPSS. The Lee paper, though well sprinkled with summations and linear inequalities, was quite

easy to grasp. It spelled out what any such transportation project would produce and entail. The value of the Lee paper was that it called for a system of setting priorities among competing objectives before a transportation model could be built. I saw this as the perfect path to bringing in the Board in an early coresearcher mode (Elden and Levin, 1991).

What also was taking place was that I was aware of the severe racial segregation that physically separated the races in the WPSS. As early as January 8, 1991, I had performed an analysis of ethnic and racial distribution of the WPSS, and had found that using my definition of full integration, less than 9 1/2% of the children were attending fully integrated schools. In the same study, using a more relaxed method which I developed, I discovered that less than 46% of the bulk of the student body was in a fully integrated setting. This latter technique was based on Tchebyshev's Theorem of minimum data clustering, regardless of the underlying probability distribution of the random variable in question. There was no attempt to define full integration once and for all. What I tried to do with the statistical techniques was provide a way to speak of the notion of full integration that was not completely arbitrary, and that lent itself to continual monitoring by Board members in dialectical way. No matter how one looked at this, the implication of physical segregation was clear.

Because of this, I was not trustful of the Staff nor of the superintendent. There were other reasons for feeling a little leery.

The Anti-Racial Segregation Resolution had been passed in mid-March, 1990, and nothing officially had come of it except our intervention. The Board had been silent on this issue. Even when in, January 18, 1991, the Board released to the press, its plans for the future of the WPSS, no mention of the Resolution nor the desegregation issue was made. (See Appendix 17.) Thus, early in this intervention, I felt that if I could get some open dialogue on the racial desegregation issue going among the Staff and the Board, then some progress was possible. If this could not happen, then its absence would serve as evidence that the racial desegregation issue was an undiscussible. I needed further data and understanding to ascertain if its undiscussibility was also undiscussible (Argyris and Schon, 1978). To me, open dialogue constituted a press release or resolution or memorandum by the Board or the Superintendent on the issue. If it was done secretly, then this was self sealing in the Model I form, and useless. My activist role used the word 'useless.' My researcher role would capture the self sealing as evidence of a Model I form.⁸ The next meeting

⁸To further confuse the dialogue, remember that double loop learning is a value judgement, not a 'scientific' impersonal datum (Argyris, 1990). Double loop learning has as its governing variables, valid information, free and informed choice, and internal commitment to the choice and

with Staff, February 12, 1991, included only my student, and Messrs. White and Byrd. It was quite productive. Cost benefit issues were easily discussed. Both staffers were quite cooperative and supplied volumes of cost data and related statistics. The question of the meaning of full integration arose. I felt no resistance to an attitude of exploration about this issue. Later, Dr. Love, the WPSS research director joined us and pledged cooperation. I learned that she had money, so that the purchase of software was not out of the question. I showed her my preliminary analysis of the enrollment distributions. She did not seem unduly alarmed. Staff showed nothing but gracious behavior, except when Mr. Byrd appeared to become agitated by the antics of problem children on the busses requiring monitors. I spoke to him and he seemed to calm down. I asked that he provide additional data breaking out the Special Education transportation component from the Alternative School (discipline problem) transportation component. He agreed. Everything seemed on track; but I got this funny feeling that they were some how waiting to be told how to act. That is, no one had interpreted for them what exactly they were involved in, or how to proceed in the intervention. It was just a feeling. There was no evidence, except my experience in civil rights over the years.

constant monitoring of its implementation (Argyris, Putnam and Smith, 1985).

On February 15, 1991, I received the Iowa Test results for the WPSS for the March, 1990 period from Dr. Love. These results were for grades 4, 8 and 11. These are the grades that traditionally are studied to see how a school system is doing. I also received confirmation from Dr. Love's staff that Dr. Edison had requested and received an earlier study of similar data by race and by class. Dr. Love's staff had conducted the study. Hence, Dr. Edison was at least inquiring about the issue of equity. I became curious about this and called a key ethnographic informant, Mrs. Jane Smith (not her true name), who was a Board member and asked her if racial or ethnic test data had been requested or distributed to the Board within the last year. She said no. I asked why not. She said that it had never come up, and that no one had created any need for such an inquiry. Mrs. Smith was a key player in getting the Resolution passed. In the conversation, I told Mrs. Smith that I was ready to release a preliminary study showing that there was strong evidence that the WPSS was operating a dual system: one for Blacks, one for Whites. She became very agitated at this, asking that I only send it to the superintendent. She kept saying that we had to wait until the facilities study was in place before we could go after the desegregation issue. I did not understand this. I kept asking her what the effect of new buildings was going to have on desegregation and improved instruction. She did not

seem to answer this well, but kept insisting that new buildings are what we needed first. I told her that no one trusted the facilities study since the Board was not communicating very effectively about its benefits to education. She became very agitated at this, and blamed the community for its apathy. I told her that the 20% variance policy that the Board had come up with was considered extreme, even by the Justice Department. (The Black/White ratio in the WPSS is 66 to 33, respectively. The Board has advocated a racial balance policy that would allow a school to range from 86 percent Black to 46 percent Black. This is the 20% variance concept. It translates to a 45% full integration level of the student body. That is, about 45% of the regular student body would be in fully integrated settings under this policy.) She did not respond to this other than to say that this was a Board issue and that the Board would rectify it if necessary. She also told me her feelings about Mr. White. Namely, that she felt that he was somewhat disingenuous around racial issues. Furthermore, she told me that he had spoken to the Board in Executive Session and reported to them that I had put forth the notion that this Transportation Plan was going to cost \$70,000. I told her that I would comply with her wishes and not officially release any study until I checked with her.

Several working hypotheses were apparent to me at this juncture:

1. The superintendent was interested in racial equity.
2. The Board was not interested in racial or ethnic data.
3. The Board was going to deal with the desegregation issue in secret.
4. Mr. White was being projected to me in a duplicitous light. I was being told not to trust this man because he was tryign to undermine the Project.
5. The Board was committed to securing new facilities for the WPSS.
6. Staff was cooperating with the intervention.⁹

One of the things that immediately developed as a result of the February 12 meeting was that I was able to show Mr. Byrd how he could save from between \$36,000 to \$54,000 annually on his transportation operating expense. This would require a rerouting and scheduling scheme (Desrochers, et al., 1988) which could easily be implemented. His reaction was defensive. He seemed to want to make excuses for the inefficiency of the operation. I did not push this with him because I was trying to gain his confidence. He was eager to bond with me. He repeatedly

⁹Whyte, 1991, says "...we start by discovering the problems existing in the organization. Only as we work with members of the organization, diagnosing those problems, do we draw upon the research literature as well as our own past experience." (p.17)

invited me to his location on the other side of Wallop. He appeared to want to talk about issues. All this transpired on the phone on the 15th of February.

My next meeting with Staff was on the 22nd of February. Here, Mr. White indicated that he would support the development of a CST, but that Dr. Edison would have to give approval. Dr. Love also approved of the CST idea. Mr. White was clearly resistant to the idea of developing indirect costs. Mr. Byrd was more pliable. Mr. Byrd also did not produce what he had promised on the 12th: a breakout of transportation costs between Special Education and Alternative Schools. Also on this day, I asked Dr. Love's staff for a copy of the study that had been done for Dr. Edison on equity. They replied that they had not really done it, but were thinking of doing it in the future. At this point, I felt that another working hypothesis was taking shape:

Staff did not have a precise and consistent set of guidelines with respect to the intervention.

I realized that I had to get both the Deputy superintendent, Dr. Ben Finch, and Dr. Edison more directly involved in the intervention. I had several conversations with Dr. Finch before on a variety of issues, and had discovered that he had studied Anthropology and was familiar with Learning Theory. If I could recruit him, he could prove to be an invaluable coresearcher and participant. On

the 22nd, I provided Dr. Love with a preliminary copy of my analysis of the 1990 Iowa Test data for her study and future comment.

One thing that I should mention here is that the atmosphere was quite delicate and the idea of recorded interviews was out of the question. Furthermore, my student was trained by me in Operations Research, not Participant Observation. My field notes are my main record of this chronology. Later, we will refer to various newspaper articles and a recorded interview with a newspaper editor to bolster our construct validity.

The next meeting was March 1, 1991. Here, my student gave a mini-tutorial on linear programming. He presented the prototype student assignment problem (Heckman, 1968). It was very clear and well illustrated. Mr. Byrd was quite enthusiastic. Mr. White was hesitant. I could tell that they now understood how the Transportation Model would work. Discussion went to the racial mix policy of the Board. Mr. White was very stubborn on the 20% variance policy. Mr. Byrd did not seem to care one way or another. Then, a little bit of luck came my way. Dr. Finch was walking by and I beckoned him into our meeting. I told him that there were policy issues impacting on the intervention, namely, the race mix issue and management support for Mr. Byrd's operation to implement desegregation. He became very enthusiastic and promised to have the superintendent at the

next meeting on March 8th. Dr. Finch also told me that he was having a lunch meeting with Dr. Love and that my preliminary 1990 Iowa study was to be the subject. We spoke briefly about the racial connotations of the 'Save School A Coalition.' He then told me that the Board had retained an attorney to determine their exact status with respect to the recent Oklahoma City v. Dowel Supreme Court decision. The activist is responsible for underlining the sentence just written. The researcher could see this as an attempt by the Board to simply see how they were legally, so that they understood their flexibility in light of their proposed facilities plan. I will come back to this in a moment.

In this meeting, I received map data and bus stop data from Mr. Byrd. Mr. White was quite resistant to the indirect cost issue. I asked them both to provide me reflective memoranda on how the intervention was going so far. They agreed to do so. I felt that these men wanted to work with me, and that genuine diffusive learning was possible at the Staff level.

B.1. An Interaction With The African-American Community

The Black community in Wallop has a rank and file leadership cadre. Part of this cadre formed the Leadership Group (TML), led by ministers to address various issues of the Black poor. I was part of this group. TML had been

meeting every Thursday at Henry Street Baptist Church for lunch and talk since the middle of December, 1990. TML met no matter what, except when a holiday fell on a Thursday. Any Black person of ambition found his or her way to one of these Thursday meetings. On March 7, 1991, at one of these meetings, State Senator Joe Lowes showed up. I was acting secretary that week since the regular secretary was on a religious retreat. During the meeting the opportunity came up to discuss the school issue. (I had shared with the TML my preliminary findings about the duality of the WPSS with respect to enrollment patterns and Iowa test data. This was done at the meetings of the 14th and the 21st. Also, I had told the TML about what Dr. Finch had told me. I had done this at the meeting the week before, on February 28th.) Senator George proceeded to tell us that he had recommended Attorney Henry Brown, of Mound, Green and Brown, Capital City, USA, to help the Board understand their legal standing with respect to the Oklahoma City decision. Mr. Brown is a prominent Black attorney, former mayor of Capital City, and very successful in civil rights litigation. Also, he was the attorney for Michael Lyles, et al., in Lyles et al. v. the WPSS in 1971, when the WPSS was forced to desegregate its schools. Michael Lyles is the son of Harold Lyles, the current president of the Wallop ACTON. I was appalled and outraged, and attacked Senator Lowes, charging him with

duplicity. It was a very tense meeting. I still remember it quite vividly, today, six months later.

During this meeting, several prominent members praised the banker that had engineered the neighborhood schools magnet schools resegregation plan through the Board in August 1989. It was well known that I had singled this banker out as an arch-segregationist. I had warned the Black community not to have any dealings with him. I did not take that bait. I ignored the hook to respond. I came away from that TML meeting with the following working hypothesis:

On part of the Rank and File leadership group, there appeared to exist collusion to maintain the status quo.

I also realized, whether it was true or not, that I was alone. I could not trust the group. I could not share with the group my research on the Staff nor the Board. This lack of trust extended to the leadership of the ACTON. We will see later that this protective coating that I developed made sense.

B.2. Personal Reflections

Part of me took this quite personally, and I was very hurt that I could not trust my own people. But, my researcher training also told me that this school issue was

so powerful in Wallop that this kind of aberrant behavior by the Black leadership was not unusual. That is how organizations respond to being confronted with the undiscussible. The confrontation is a major cage rattling. You have to expect people to behave strangely, even conspiratorially to try to put the stone back in the dike as the water is flooding forward. How this is controlled in a normal intervention is through the social contract with the organization. When you do not have a such a contract, the aberrant behavior goes unchecked and the countermovement through conspiracy to cover up has no official organizational forum for challenge. One of the roles of the social contract in an intervention is to set limits on reactive behavior. This is not to say that even in solicited interventions you do not find aberrant and conspiratorial behavior; it is to say that in such a setting there is an official organizational opportunity to address and challenge it. The success of the challenge is not guaranteed.

B.3. A Key Meeting

On March 8, 1991, the promised meeting with Drs. Edison and Finch took place. Present were also my student, Mr. White and Mr. Byrd. I began with a short discussion of

my student's presentation of the linear programming model. The purpose was to bring everyone up to speed with respect to jargon. I spoke of racial mix policy issues. I showed that the WPSS would need to change the enrollment location of 5100 students if they were to have full integration. (See Appendix 1.) I recommended a minimum 30% White level per classroom per grade as the ideal racial policy. On a high school level, this would translate to full integration of about 82%. There was a lot of discussion. It became apparent that the Board had to be involved now in the intervention. I spoke of the indirect cost issue, and the lack of adequate cost data to reflect true costs of instruction. I spoke of the disparate treatment that Black students had been receiving. I spoke of the need to embrace the cost benefit approach to get at some of these issues. Dr. Edison was evasive. He tried to show that he did not know what was going on, but later it was clear that he was well briefed on all issues. He objected to the idea of bussing. He did not respond well to the issue of disparate treatment. He was quite political. He implied that the ACTON had given approval for the construction of a new School C. I did not respond to this. Dr. Finch volunteered Mr. Brown's name as the attorney that was retained to help the Board. I made a minor comment. It was a non-sequitur. Dr. Finch examined my data on the full integration

derivation. He was impressed with its simplicity and my thoroughness in its compilation.

Messrs. White and Byrd both spoke of the need for planning and action. Mr. Byrd spoke of the need to be included in the process of management. Mr. White was quite reluctant to purchase some transportation software, under \$2500, because he said that he did not understand it. Also, the discussion about EDULOG came up. Dr. Edison asked why it had not been purchased in February of 1990; Mr. White gave a tenuous answer. Mr. Byrd again invited me to visit his operation.

Dr. Edison supported the idea of a CST, but was against Board membership on the CST. Dr. Finch agreed to help Mr. Byrd and Mr. White write reflective memoranda on the intervention so far. He also agreed to write one on the meeting that had just taken place. Dr. Finch invited me to attend and speak at the 21st of March, Instructional Leadership Team (ILT) meeting. I spoke to Dr. Finch after the meeting and told him of some of my reflections. I told him that it was clear to me that both Mr. White and Mr. Byrd felt left out of major decisions and that they needed bonding with him and Dr. Edison. Dr. Finch agreed and said he would move on this. I left this meeting with several working hypotheses:

1. Dr. Edison was beginning to understand the depth of the desegregation problem and was making up his mind on how to proceed.
2. Dr. Finch had seen value in my observational skills and wanted to use them with his ILT.
3. A clear schism existed between Mr. White and Mr. Byrd, and Drs. Edison and Finch. Messers. White and Byrd were not part of key decisions and were expressing their feeling of alienation from the superintendent.
4. Dr. Edison did not want the Board involved in the racial mix issue.

With respect to hypothesis 4, I discuss this later when the Transportation Model is finally presented to the Board in June, 1991.

B.4. A Meeting With White Community Leaders

On March 19, 1991, I met with four members of the deposed Human Relations Committee. I had been invited by Pastor Young of Eight Presbyterian Church. Present also was Mr. Lou Big. He is a teacher and leader in the Wallop community. His wife is the president of a local Wallop Civic League. The invitation had been arranged by Mr. John Way of the City Council. The four members were white males. None of the Black members of the committee were present. I

presented the Iowa data and the enrollment data to show the duality of the WPSS. I then gave them a questionnaire to fill out to get some of their reactions. There was no dialogue allowed before the questionnaires were filled out. After the exercise, we had a general discussion about the racial state of affairs in Wallop. It was agreed that the Black and White communities did not trust each other. When I asked Pastor Young if there were any Black members in his church, he answered no. When I spoke of the possible collusion among some Black leaders to maintain the status quo, they seemed genuinely surprised. After a long general discussion of how to solve or address the racial issue in Wallop, these men started asking me for the answer. I retorted that this was their community and that they had the answers if they only looked. No one challenged this. They appeared very passive-attentive, as if they were lying in wait for something. At the end, Mr. Big said that the school data did not tell him anything new. I responded by saying that it told him that the WPSS was a dual system, not a system with problems. Pastor Young agreed. They did not make a bridge with me. They did not extend a hand of friendship nor an offer to work together. The results of the questionnaire showed that this group of White men denied that there was any relationship between Black achievement and racial integration. They were clearly against any major effort to integrate the schools. They appeared to be

advocating separate but equal schools. This meeting left me with the following working hypothesis:

If these men were truly representative of the White Rank and File, then White leadership saw desegregation as an issue separate from Black academic achievement. Furthermore, White leadership saw no inconsistency in working on human rights issues independently of Black consensus.¹⁰

The reason this experience spirals into the intervention will become clear at once.

B.5. The Introductory Meeting With The ILT

I was invited to the ILT meeting, March 21, 1991, by the Deputy Superintendent, Dr. Finch. We had previously discussed what I wanted to do. I told him that I wanted to observe his administrative staff with respect to how they interacted and solved problems together. I told him that I would be making a presentation that in effect was a double loop learning exercise. He was somewhat hesitant with my

¹⁰On Saturday, August 10, 1991, the USA's Pilot ran a story where the Sealane School System was examined in a similar vane to the WPSS. The gist of the official commentary by Sealane Black and White Rank and File was that desegregation and Black academic achievement were unrelated. The story, along with other evidence that I will present, implies that racial public school desegregation is the main undiscussible in this part of USA.

intentions, but I assured him that all my research about his team would remain confidential unless his team voted unanimously to allow it to be released. He was grateful that I had observed the lack of bonding with Messrs. White and Byrd, and senior staff, so he wanted me to see how his team worked with him. I agreed to report my initial observations to him if they were significant, and he agreed that I could conduct my exercise with the ILT.

Present at this meeting were Mrs. Daisy Little, Director of Programs, Mrs. Teresa Benson, Director of Schools, Dr. Deborah Love, Director of Research and Evaluation, Mr. Mike Frank, Director of Communications and Development, and Dr. Finch and myself. Absent was Mr. Johnson, Director of Personnel. Mr. Johnson is not considered an ILT member, but is seen as an ancillary administrator with Staff that on occasion interacts with the ILT. Messrs White and Byrd are not members of the ILT. If we name Dr. Edison, then we have named the entire Staff. There are other administrators in the WPSS besides these members, but they are on a lower rung of the ladder.

Dr. Finch began the meeting by explaining my role as a learning theorist helping the WPSS address the question of student achievement. He then proceeded to expound on the vision for the WPSS within the context of Total Quality Management (TQM). He spoke of Organizational Learning as a goal for the ILT and the WPSS as a whole. After awhile,

discussion followed with many probes being directed into the air. One theme or stance that emerged was the need to examine the relationship between the ILT and the Board. It was clear that the Staff did not feel direction from the Board on educational policy. Several members said as much. There was a consensus that school principals had to be encouraged to take risks. The language of TQM was used several times. Dr. Finch used the phrase 'controlled choice' five times in his dialogue with the team. Magnet schools were also connected to the controlled choice phrasing. It was clear that Dr. Finch knew the language of Argyris and Schon. It was also clear through their propensity to ask challenging questions that the team was pliable and flexible enough to entertain Organizational Learning. What was also clear was that they were in a Model I construct. This became obvious when several members posed the challenge:

Is this new site management program really going to make a difference? We've been here before, how do we know that this time there will be a difference?

There were no ancillary questions nor directions produced by anyone about how to proceed. Even more compelling was the lack of recognition that there were no responses to the challenge. There was no true discussion of their mission within a context of data support. They would

speak of what they felt were meaningful visions, but they had no data to support their hypotheses. They moved to address this data question by recalling that they were data driven before under the former Black superintendent, Dr. Edwards. They cycled back to the key challenge posed above. Again no response among them. They appeared to have no consistent method of determining how to evaluate an educational or service program. There were five such programs presented to the ILT by other WPSS staffers or administrators and several things became apparent:

1. Evaluation criteria was absent from all discussion.
2. Cost to Benefit maps were nonexistent in the dialogue.
3. Minutes of the presentations were not taken.

This all occurred over the course of a day. In the morning, I asked to perform my exercise with the ILT. The exercise was to present the enrollment and Iowa 1990 test results and ask the Staff to write down what the data told them. Discussion was not allowed before the exercise. There was a double loop component to the exercise which I will comment on later. I was given permission and the results will follow presently.

The connection to the Human Rights Committee exercise is that Question One of the ILT exercise was identical. I also made the same presentation to the Human Rights Committee. As we will see, the ILT and the Human Rights

Committee were in agreement on one notion, namely, that improvement in Black student achievement and desegregation were separate issues. This is illustrated when we look at content variable B below. There we see that only one senior staffer out of five connected achievement to desegregation or integration. The rest either treated it as two separate issues or avoided addressing the issue at all.

What follows below are the results of the ILT responses to Question One. It is in a presentation format. I presented this report to the ILT in our first feedback session on April 21, 1991. This content analysis scheme is a device of my own invention based somewhat on my dissatisfaction with the current literature on content analysis. My scheme was to encourage dialogue and insight. Some current literature (Weber, 1990; Krippendorf, 1980) points to excellent and voluminous linguistic applications, but I needed something simple (that did not require an extensive discourse about its methodology or statistical framework) and quick to start a dialogue. The construct validity and reliability questions are easily handled in the self-apparent dialogue methodology.

B.6. Feedback To The ILT Of Double Loop Exercise

STUDY OF RESPONSES
OF WALLOP ILT TO
DOUBLE LOOP EXERCISE ON MARCH 21ST, 1991

Content Analysis of Question One

Content Analysis is where a subject group establishes reality through the eyes of an observer as content variables are captured from the group's responses to probes or other experimental apparatus designed to capture content variables. There is observer bias, of course, in that the observer is the definer of the content variables. This capture is validated when the observer presents the content variables to the subjects for their refinement. Thus the first step in our process today is the presentation of the content variables to the ILT.

The content variables are as follows:

- A. Physical Racial Integration: this describes the condition of the mix of the races in the Wallop School System
- B. Integration to Achievement: this describes a map or relation of physical racial integration to academic achievement
- C. Overall System Achievement: this describes system academic achievement without any relation to any other variable
- D. Race to Achievement: this describes a map or relation of race to academic achievement

- E. Call for Further Study: this describes an action for further study of data
- F. Self Awareness: this describes a personalization of reflection to data presented
- G. Call for Action: This describes a call for a systemic response to action motivated by implications of data
- H. System Accountability: this describes the recognition of system capability and responsibility to respond to the implications of data

What we are calling for now is a discussion of these content variables. Let us elaborate:

"When we presented the data to you, you as a system created a world in reflection and reaction to the presentation. {of course, other issues were impacting on you}. We are asking if the content variables described above well describes that world."

If we agree that the above content variables capture your reflective and reactive reality to the enrollment and Iowa test data then we can proceed. If we feel that other variables should be included or some existing ones deleted, then that must be recorded after discussion. I will proceed by pointing out instances of the content variables that I have surmised from your responses to Question One.

If there is agreement, then the analysis follows. If not, then we modify the collection to the subject refinement.

[The group agreed, so we moved on.]

Hypothesis: The ILT is Well Aligned

Decision Criteria: If the ILT is well aligned then the frequency of the number of times a team member is in the majority opinion with other team members will exceed the frequency of the number of times a team member is not in the majority opinion with other team members.

Methodology: We count the number of agreements and differences by content variable by team member. We then count the number of times a team member was in the majority opinion with other team members. We then compare this latter frequency with a majority frequency, and see if we can accept our hypothesis.

What you are asking is: are team members are in the majority opinions with other team members most of the time.

A majority frequency is 5, 6, 7 or 8. Let us illustrate all this by the presentation of the experimental data. An 'a' indicates agreement and a 'd' indicates disagreement with at least two other members.

Presentation of Data by Content Variable by Team Member

Team Member	Content Variable							
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>
001	a	a	d	a	a	d	a	a
002	a	a	d	a	d	a	a	a
003	a	d	a	d	a	a	a	d
004	d	a	a	a	a	a	a	a
005	a	a	a	a	d	a	d	d
TOTAL (a,d)	4,1	4,1	3,2	4,1	3,2	4,1	4,1	3,2

Number of Times Team Member
Was With Majority Opinion Overall

Team Member	Count (#)
001	6
002	6
003	5
004	7
005	6

This implies that individually, team members were well aligned with the majority of team members. But, this count analysis hides too much information. In particular, it does not answer the question, "are team members as a group well aligned?" For this we have to do some more work.

Data By Member
Showing the Number of Times a Member
Was in Majority Opinion With Other
Members

Team Member	Team Member			
	001	002	003	004
005				
001 3	--	5	4	4
002 4	5	--	4	4
003 3	4	4	--	4
004 4	4	4	4	--
005 --	3	4	3	4

Note that this is a symmetric array; thus, either triangle will do for the count frequency analysis.

Count Frequency Analysis

Possible Counts: 0 1 2 3 4 5 6 7 8

Frequency : 0 0 0 2 7 1 0 0 0

Hence, the frequency in the majority is only one, versus, nine not in the majority. This yields a coefficient of alignment of $1/10$ or $.10$. If the hypothesis were

because there are only ten possible entries. Five because there are only eight content variables.¹¹

Therefore, at this time we cannot conclude that the ILT is well aligned with respect to the reflective and reactive world provoked by the enrollment and Iowa test data presented to them on March 21st, 1991.

If you looked at this terms of members only, that is, are a majority of members in agreement on most of the content variables, then a count of at least three entries of five or more, would suffice to imply alignment. I stayed away from this approach, and concentrated on the content variable itself. I did this because there were only five members, and I wanted a more compelling random variable.

Note well how we changed our wording in our conclusion. We implied that the ILT was not aligned with respect to a specific world. In our hypothesis above, we were quite general, and of course, faulty. There is no way to conclude that the ILT is well aligned on all matters. Every situation presents new content variables, hence new worlds.

¹¹There are some interesting games to play using the Binomial distribution. For example, what is the probability of alignment, given a world, described by a collection of content variables. Another question that arises is trying to describe the world after you have done a number of content variable experiments. That is, is there a content variable distribution for any world, regardless of the actual content variables? I am asking: is there a sort of Content Normal distribution with a Central Limit theorem for any world? My true interest here is with the mathematics, namely, can this be made palatable to the non-probabilist.

This technique is very valuable and useful in major issues of concern. It would be very time consuming to use it for everything that came in front of the ILT; but for very serious questions, it is most efficient. It is a good tool for double loop learning, and is very effective in exposing camouflage in a non-threatening way to members.

Camouflage is the biggest obstacle to change. Camouflage, in settings like this, is usually expressed as the substitution of other causes of a problem, for the ones that actually causes the problem. For example, substituting economic class for racism, as a cause for racially disparate performance in school, is a typical Model I camouflage construct. People tend to be very defensive as a rule, and resist change in very ingenious ways. The future of the ILT, and for that matter, of the Edison administration rests solely on the capacity of the Edison cabinet to engage in double loop learning.

B.7. The March 21, 1991 Meeting With The ILT Continues

Dr. Love presented her need analysis of data disaggregation. It was based on the 40th percentile of national norms. I knew that the 49th to the 50th were grade equivalent, so I noted this in my record as an issue to discuss with her at another time. As I was leaving, I decided to let them have at least an hour by themselves, I

moved to set up a feedback session with them. It became very difficult to nail down. Everyone's calendar had conflicts of all sorts. I suggested that I call Dr. Finch to set this up. I also mentioned to them that I thought it unusual that there had been no major disagreements among them. They looked surprised and a member spoke up saying that the ILT had agreed to disagree in hospitable and gentile ways. They did not know it, but they had given prima facie evidence of a Model I construct: minimize generating or expressing negative feelings. Another member took offense at the remark. This I saw as protective coloring. This member all along had this style of approaching issues: quick to the attack. This person saw winning and losing as the most important governing variable in dialogue. Again, evidence of a Model I construct.

B.8. Resulting Working Hypotheses

I came away from the March 21, 1991 meeting with several working hypotheses:

1. The ILT wanted to succeed.
2. The ILT had very little understanding of management.
3. The ILT was very well educated and concerned with student achievement.
4. The ILT did not understand data well.

5. The ILT was a Model I system.
6. The ILT did not have a clear idea of how to interact with me.¹²

I have extensive notes on this meeting from which I have extracted questions that can see some understanding during this writing. Issues of sexism, racism, unilateral control of dialogue, and camouflage are hinted at with those notes. The delicacy and far reaching extent of these issues together with their soft proofs, I leave for other research.

B.9. The Feedback Session On The March 21, ILT Meeting

I prepared myself for this session with the following probes:

1. Explain my aims,
2. Coresearch with them about their Model I construct,
3. Reflect on how their responses were the same and different,

¹²As I inferred in Chapter Two, I was prepared to see surprises as they occurred. The fact that the ILT had great difficulty setting up a date for feedback was quite a surprise. I could speculate that they simply were caught off guard about the feedback session; but I know that Dr. Finch had made it clear to them that this was to take place. It could also have been that implementation of anything was a problem for them. I did not know. Nevertheless, in an intervention when there is a social contract, regular feedback sessions are part of the course of events. Players know that this is expected of them, and they respond accordingly. Also, in the 'theoretical base' we see that senior management had allocated time for meetings as part of the CST social contract. To me, the surprise was that to set up a feedback meeting was difficult.

4. Reflect on Human Rights Committee responses versus theirs,
5. Get into questions of information and information exchange,
6. Get into questions of setting evaluation criteria for instructional and service programs, and
7. Propose other meetings for relationships with other Staff members, middle managers, and Board members.

The feedback session occurred on April 21, 1991. We were allotted only two hours. I was hoping for at least a full morning, but this was the best I could get. The meeting began in an amicable way. Dr. Finch seated himself at the head of the conference table and tried immediately to take charge. I let it go on for a while and then said that I wanted to make my presentation using the overhead projector. This broke the minor tension that he had created and I proceeded to the front of the room with my transparencies of the results referred to in B.4 above. Then a very strange thing happened. Mrs. Little, the Director of Programs and the only Black person on the ILT, abruptly announced that she had to go to the doctor's office that morning by 9:45, and that she was sorry but she had to leave. She said that it was an appointment that she had been putting off for some time, and that today she had decided to deal with this medical problem. I did not know how to respond. I was going to cancel the session. There

was no talking to her about seeing the doctor later that day or any compromise. Remembering how difficult it had been to get this group together, I decided to proceed. I held her long enough to get her and the rest of the ILT to reflect on the content variables to see if the variables well reflected the world created by the ILT responses to the Iowa test data and the enrollment study. They all agreed that the variables did the job well. There was some minor disagreement from Dr. Love who wanted to bring sex and class into the analysis, but the group disagreed with her input, considering it superfluous to the discussion that needed to follow. Mrs. Little then left. I presented the analysis. The group was impressed with its accuracy, and said so. The first negative reaction came when I posited that my test showed that the group was not aligned on the race issue in the WPSS. This they did not like. There was silence in the room. No one challenged the hypothesis, but you could feel discomfort in the group. This could have been because they did not understand how I arrived at the hypothesis, or that they did not like the hypothesis itself. I did not know. When I raised the fact that only one member had associated integration to Black academic achievement, there was no challenge. That Mrs. Little was absent affected the dialogue, but I do not know how. During the March meeting she had been in unison with Mrs. Benson for most of the day, and had pushed for the confrontation of key issues. Here,

no one took her role. There was some passive behavior after the presentation. No one responded or challenged my hypothesis. They became somewhat withdrawn. I then went into Learning Theory to try to get some dialogue going. I supplied a chapter on the subject from Action Science, 1985. I used Dr. Finch as a foil. I focused on his unilateral control management style, hoping to get something going. We remembered the March meeting 21st well. I was able to point out some things that were somewhat delicate. There were some raised eyebrows, but things appeared fine. Dr. Finch was a perfect foil. He made all the classic Model I errors and I pointed them out every time he did. I still felt some discomfort in the group. I tried prying it open, but it was not going well. I posed the challenge to the group with respect to the minutes of meetings that they were not keeping. Specifically, when the topic of quality management arose with the group meeting regularly with the principals of the WPSS, I asked if they, the ILT, were keeping regular diaries of these meetings to see if the principals were changing their learning. The group was split on this, with only one member keeping regular notes; the others jotted down brief notes in their appointment books. I suggested to the group that maybe they were involved in a lot of 'busy' work, instead of substantive change. (I remember the group telling me in March that they had 'been here before.'). This threw them. They did not respond. They looked at me

quizzically. I expected them to challenge this. They did not. Then the group became very concerned about my intentions politically. I told them that I was here to help them with learning to learn, and that it was well known that I was an integrationist. They then asked me if my research had anything to do with my dissertation, and I said no.¹³ In this session, I told them that I was leaving USA at the end of the summer. They asked a minor question or two about that and the session ended happily. We agreed to meet again on May 8, 1991, in the evening for a dinner feedback session specifically focused on the information exchange relationships that I had mentioned before. I was never to meet with them again. The April 21, 1991, was the last meeting with them.

B.10. Mrs. Daisy Little

¹³I made this decision early in the intervention because I did not want either the WPSS nor the community to have any power over me in this intervention. I did not trust any of these people. I had seen enough to let me know that I had to conduct this intervention in a semicovert way. The way I handled it was to say that the piece of the intervention that was in my dissertation was highly technical and written long ago. I saw no ethical problem here. There was nothing in my research that I was not going to give to the Board in the final presentation. My politics were well known. Recall that I decided on this path long after I had been affiliated with WPSS politically. It was a judgment call. I saw no issue of construct validity or reliability being compromised by this decision.

I called Mrs. Little later that afternoon. She was in her office and working on some program that she was sponsoring in one of the schools. We talked about the rest of the morning session. We seemed to exchange well. She said to me that the group had told her that the session had gone well and that I was leaving USA. She also appeared quite concerned about my intentions with respect to the research. I asked her if the group had mentioned to her my findings that the group was not aligned on the race issue. She said no. This led me to the following working hypothesis:

The ILT was not going to confront the race issue.¹⁴ That was the last time I spoke to Mrs. Little except for a brief encounter in May after a Board meeting. For three months afterwards, she never returned my phone calls.

C. The Doors Start To Close

C.1. A Key Meeting With The Superintendent

¹⁴This is where research and activism appear to get entangled. But I dispel the confusion in a scientific way. 66% of the WPSS is Black. Less than 50% of all the children attended integrated schools, no matter how one would reasonably define integrated. Black children are statistically in another world, different from the White world, based on the Iowa standardized test results. Whether one believes that race is the issue or not in the achievement of Black children, before a conclusion can be had some study and research must be made to either support or refute the importance of race in the WPSS. Not calling for such research is in fact avoiding the question, thus the question becomes an undiscussible and failure to reflect on the undiscussibility, itself becomes an undiscussible.

On April 17, 1991, Dr. Edison and I met for about one hour. The agenda for that meeting covered setting up the CST, the interface with the Board, and the commitment to a time line for final package delivery. Earlier that day, I had met briefly with Mr. White and had reviewed the data base management system that the WPSS uses. The data maintained were quite extensive. I realized that the WPSS was not data poor, but instead, its data management system was undeveloped and under utilized by Staff. Dr. Edison made it clear that he did not want the CST. He said that he would review my February 4th, 1991 memorandum to him about the CST and get back to me. He suggested that I write a letter to Bernard Broad, the chair of the Board, about my request for interviews with Board members, and an orientation for the Board on management science. He said that he would write a supporting cover letter to be included in the letter to Mr. Broad.¹⁵ Dr. Edison also posited

¹⁵I put this note in here now to show something of my emotional context at this time. Mr. Broad is being projected to me by Mr. Lyles as being in complete opposition to the intervention and to anything that may come from it. I had the occasion to speak to Mr. Broad back in January at a social gathering. I had approached him with my preliminary findings on the WPSS. I wanted to set a meeting in Mr. Lyles's house to present to Mr. Broad these findings. My activist head said that this knowledge would give him the ammunition he needed to fight the desegregation battle on the Board. The Board had been very silent on this issue and the Resolution implementation. At the social gathering, I realized that Mr. Broad was quite unaware of the vital statistics governing the WPSS. This was confirmed by my dialogue with Mrs. Smith in February. Mr. Broad agreed to meet at Mr. Lyles's house within two weeks. I worked day and night preparing a report

that bussing should take place in 1992 when his facilities plan/middle schools concept would begin to take effect. I suggested to him the renaming strategy for School B High to School C. He liked this idea very much, but did not know if it was politically feasible. I came out of this meeting feeling that Dr. Edison had not fully grasped what the intervention was intended to do. Furthermore, I felt that he had not read the February memoranda, wherein the scope of the intervention was set from the ODU side. I started to feel a little panicky. Emotions aside, there is a discovery here, namely, that with an intervention without a social contract, participants are not required to read as expected in an intervention where there is a social contract. You can not hold participants accountable to anything.

C.2. Other Meetings And Interactions With Staff

The next day, I visited Mr. Byrd's operation. It was very impressive. I saw that his transportation function was undermanned and clearly lacked adequate computer support. Furthermore, his key person in bussing, Mr. Walters, informed me of the 'School B Privilege.' It seemed that the

for him, together with charts and graphs and the like. He never showed up at the scheduled time and date. Mr. Lyles told me later that Mr. Broad was simply afraid to meet with us. I hypothesized that Mr. Broad was operating out of the context, 'out of sight, out of mind.' This appeared to reinforce the Model I construct.

School B community was the only community in Wallop that could get door to door bus service. Everybody else had to live with the 'within one mile you walk to school' rule. He told me that he could never get an answer from his superiors as to why this was so. He also told me that this privilege drained his transportation resources, so that even if desegregation were to come, this drain would be a major obstacle to it. I also discovered that the transportation function was going to be supervised by two ten-month people who did not work during the summer. Mr. Walters had given notice, and Dr. Vale was retiring in an early-out program. They were the only year round people in the transportation operation. I was also informed that day by Mr. Byrd that he had been told that desegregation was not going to happen in 1991-1992.¹⁶

On April 30, 1991, I called and canceled the meeting for May 8, 1991 with the ILT. The reason was that I had been invited by the National Executive Secretary of the ACTON, to Little Rock, Arkansas to attend the Daisy Fate

¹⁶This is my sense of everything now. I know how easy it would be to modify their data management system to support any desegregation transportation plan. I know how beneficial a CST would be to the WPSS, and I know that Black children are at risk in the WPSS. My activist head wants to fight, to confront the system, to expose them for what they appear to be doing. My research head knows that there are many different things going on, and that I don't know all of them. Knowing that I didn't know helped me calm down and rededicate myself to finishing the Transportation Model. My nerves were shot. I was alone and it was beginning to wear thin.

Educational Summit of the ACTON. This meeting was crucial in determining national strategy for the ACTON in the area of school desegregation. Of the over 1100 chapters in the ACTON, only six had been invited to send representatives. Wallop was one of them. Our work in Wallop, USA had brought us to the attention of the National Office. Almost immediately, I realized that I could attend the ILT meeting on the 8th. I started calling Dr. Finch to reactivate the May 8th, meeting. A week passed with no response to my calls. Finally, I went over to his office and his secretary told me that the meeting could not be reactivated because of conflicting schedules of the ILT members. This happened on the 6th of May. Later that afternoon, Olivia Benson's secretary called and said that my lunch meeting with Mrs. Benson was canceled. Neither secretary offered a new date nor an interest in a new date by their superiors.

On the 8th of May, I received a letter from Dr. Love refusing me the data I had requested for teacher race, gender and time in service. This is the first time that she had refused me anything.

On May 13, 1991, I met with Dr. Edison again. He was against the CST idea. He indicated to me that the Board did not understand why I wanted to interview them or why an orientation was necessary. He wanted a commitment from me about the final presentation in June. I said fine. I talked to him about the Little Rock meeting and the national

importance of Wallop. He seemed to understand this quite well. I talked to him about the privileged status of School B. He seemed to know this already. I spoke to him of the incidence of crack and AIDS children in the school system, and how integration was a deterrent to this phenomena. He made no comment on this, but indicated that he was prepared to entertain the bussing of White children out of School B. He also understood clearly that the Board would have a low level of understanding of the Transportation Model without an orientation.

On May 16, 1991, I had an impromptu meeting with Dr. Edison again. I was at the School Board office to see Mr. White when I ran into the superintendent. Mr. Lyles had already informed me that the Board did not want to have the interviews or the orientation. He had received his information from Mr. Broad. I asked Dr. Edison why this was the case. I was interested in understanding the Board's thinking. He became very defensive. I pushed him further and spoke of the relationship between the Resolution and the Transportation Model. He became angry and said that the Board did not see any connection with the Resolution or the Model. He then went on to say something very negative about the building of the new School C. Basically, he said it was not going to happen. I was clearly confused by then. We parted civilly, but I made up my mind to confront the Board directly on the 16th of May at their regular meeting.

This series of interactions left me with the following working hypothesis:

Because it was now obvious that the Project was inseparable from the desegregation issue, the Staff was trying to distance itself from any possible repercussions

C.3. Confrontation With The Board

On May 16th, 1991 during the Board's regular meeting, I spoke at the open forum portion of the meeting. I asked why the Board was hesitating with the project. I asked why they would not allow us to interview them. I asked why they would not let an orientation take place. I read to them from both the February 6th memorandum to Dr. Edison and the May 4th memorandum to Mr. Broad. I pointed out to them that ODU what ODU had understood to be the scope of the project, particularly the interface with the Board. I was asked questions about my intentions with the research. When I proceeded to answer, Mr. Broad cut off discussion and said that he would meet with me in private to discuss the finalization of the project. Later that evening I met with Messrs. Boat and Lens, both Board members. We talked about the project and the notion of full integration. Mr. Brens stormed off because he was wedded to the 20% variance idea. Mr. Boat stayed and listened. He appeared interested was

not closed to dialogue. He appeared genuinely surprised at some of the information about the project as it had been unfolding. Earlier that evening another Board member approached me and said that the interview questions (Morris, 1979) were just too threatening. I felt as a result of these encounters that:

The superintendent had not been doing a very good job of communicating with the Board about the Project, and that the Board was relying on gossip and hearsay to understand my intentions.

C.4 Meeting With Mr. Bernard Broad, Chairperson Of The Board

On May 21, 1991, I, together with Dr. Richards of ODU, met with Mr. Broad to discuss the various issues that had arisen over the Project. Mr. Broad did not want to speak of the February 6th memorandum nor the fact that he had never seen it until recently. He wanted to keep a distance between himself and the superintendent. He was cordial but defensive. He was careful. He taped the interview. I presented the needs that I had for interviewing the Board and for having an orientation for Board members about the Model. He said no to both requests. I suggested that he and one or two other Board members have an orientation so that they could facilitate with other Board members. He did

not support this idea either. We then settled what was to be presented at the June meeting as a final product from ODU. I said that I would present our findings on:

1. De facto resegregation status of the WPSS,
2. Internal deficiencies of the WPSS cost accounting and program assessment system,
3. Statistical relationships among race, achievement and integration, and
4. Simulation of student assignment by race for the 1990-1991 population (The Transportation Project).

He recorded all this, but was very hesitant on the amount of time that he was going to allot me. Earlier during the week the USAn~Pilot had written a story ridiculing the superintendent for insisting that I have only fifteen minutes to present six months of research.

It was clear to me that Mr. Broad did not know some key vital statistics by race in the WPSS. He seemed surprised on different occasions when I presented this type of data to him.

I came away from this meeting with the working hypothesis:

Mr. Broad genuinely did not understand what the dynamics were between the intervention and the opportunity for the WPSS to see a different dialectic. Furthermore, he did not know that he

did not understand. He was locked into a Model I construct to the point of rigidity.¹⁷

The doors were closed. The CST had no chance. The Board wanted only a final product. It was clear that I had to modify my Sociotechnical Model again.

D. My Second Modification Of The Sociotechnical Model

I decided that the only thing I could do was to try to help the WPSS face its undiscussible. In particular, along the lines of Argyris and Schon, if I could expose obscured information in a compelling way, then possibly the WPSS would be sufficiently provoked by other systems (the City Council, the PTA, the ACTON, the Chamber of Commerce, etc.) that it would try to learn new ways of looking at itself. I

¹⁷It is easier to say, "let's not upset the White folks with talk of integration," than to say, "if we don't upset the Black folks about how Black children are being systematically discriminated against in the WPSS, these children have no future." The easy escape is clearly a camouflage of the undiscussible. Since no healthy Black person is going to acquiesce to the systematic destruction of Black children, rationalizations will arise to explain all this away. One for example would be the building of a new School C. Clearly, if all the energy is put into preserving this Black heritage monument, then you are doing a good Black thing that somehow blankets the discomfort you feel about the destruction of Black children. But this is not a dissertation on Black and White relations. It is, however, a dissertation that will show that a school system could not embrace a sociotechnical intervention that it desperately needed because it could not reconcile its Black and White relations.

decided to make the press my unwitting ally again. I renewed my relationship with the Wallop Currents of The USAn~Pilot. This was not hard since we had had a good relationship from the past. I made sure that the newspaper was titillated enough to be interested in my report to the Board. This report was scheduled to be presented on June 17, 1991. I knew that the key was how I presented what I presented. Graphs were crucial.

At the May 21, 1991, meeting, I had already planted the idea with Bernard Broad that the Transportation Model required a \$70,000 price tag. I had found a way to design the Transportation Model using a very cheap software package, 'QS' by Chang and Sullivan, together with the Student Edition of MINITAB. I could assign all high school students to various schools and classes using these software packages. This could all be done on a microcomputer by anyone. Thus the WPSS did not need to hire a specialist. The strategy was to get the WPSS to integrate the high schools in 1991, then integrate the rest of the system in 1992 when the middle schools plan came into effect. The cost in new overhead to the WPSS was \$0.00!

I hired Mrs. Graphic Artist of the ODU Peninsula Engineering Graduate Center to design the graphics for my presentation. She was a specialist in such things using the Macintosh microcomputer. The graphics she designed were brilliant and startling. I used the 1991 Iowa test data as

my key penetration into the Board. My full report to the Board appears in Appendix 2.

E. My Presentation Of The Transportation Model To The Board

On June 17, 1991, I presented my full report to the Board. It went for an hour. There were a few questions from the members. The graphics demonstrated that the WPSS was a dual school system. The Transportation Model showed various scenarios of desegregation. None required bussing White children out of School B. The press received a copy of my report. Mr. John Way of the City Council received a copy of my report, as did Mr. Broad. When I finished my presentation, I gave Mr. Broad the software packages free of charge, with the understanding that any one could run the Project on a microcomputer. After the presentation, Dr. Edison thanked me and then went on to say that the WPSS would consider desegregation in 1992 with its new facilities plan. Mr. Broad also said thank you, and the Board proceeded with its business as if nothing had happened.

F. The Role Of The Press

The next day the press broke the story that the WPSS was a dual system. Then, silence from the press. I finally broke the wait by forcing through a resolution in

the ACTON that put the story back on the front page. Then on July 25, 1991 the press produced the information about the duality of the WPSS in a format that the public could easily understand. I consider a favorable editorial on July 28th as significant.

G. My Decision To Detach From The Intervention

I had gone as far as I could go. The community had to take it now. I was certain that for every step forward there would be a few stumbles. This is occurring now. I could not discover anything else from the WPSS until it allowed itself to confront the undiscussibility of the race issue. I fulfilled my obligation with the WPSS: I delivered a transportation model to them to help them desegregate their schools. It took a little while for me to start writing because I had to get away from the intervention so that I could see more clearly what had happened. I hope to be writing about new discoveries as the future calls them forth.

CHAPTER FOUR: Knowing Other Things

A. A Test Of Sorts

When I submitted the Transportation Model to the WPSS in June, 1991, I deliberately left out a set of transmittal notes. These notes would enable the WPSS to follow how I had applied MINITAB and QS routines to the various problems and sub problems that I had solved. These included the statistical definition of full integration, the racial balance analysis, the correlation between grade equivalency and the 49th percentile, the meaning of the objective function variables in the Transportation Model, and the derivation and interpretation of the results from the Transportation Model. I wanted to see if any part of the WPSS would follow up and try at least to incorporate this product into their technology base. No one did. In fact, when Dr. Edison wrote to me at ODU thanking me for my assistance and work, he made no mention of the transportation component of my report nor of the transportation software QS. He thanked me for the statistical software and that is all. At the very least one could interpret this as avoidance behavior, but once you put it in writing, it becomes denial. Denial here means that

the doors are slammed shut, and that the protective barrier around the Board has been reaffirmed. Others can see this differently, but the point is that the WPSS received a report with supporting software. Their chief administrator distorted this by not acknowledging all of what the WPSS had received in a letter to another agency, ODU. This is camouflage (Argyris, 1990) in an obvious way. In news stories, he continued the camouflage. But, I am not interested in indicting the superintendent or the Board; I am interested in trying to see what this experience and research tells me.

B. About Unsolicited Interventions (I): An Evolving Base
For Reliability

Hypothesis: Because there is no social contract for learning discovery, aberrant behavior is not unusual. Different settings will produce their own form of unexpected behaviours, but denial, passive-aggressive responses, and superficiality are some participant phenomena to look for when there is a lack of understanding and commitment to coresearch in an intervention that needs and calls for such. Furthermore, there is no established system of checks and balances to confront camouflage. This is especially painful if you are interacting with a targeted agency, and also with another agency or group, like I did . You have to juggle

these different components and find some safe place for reflection.

Evolving Evidence: I liked the TML because it was disciplined. It met every Thursday, precisely at noon. It began with a short prayer, no matter who was there, and ended at 2:00 pm, no matter what. There was much more of an opportunity for discussion there than at either the ACTON meetings or the various meetings with the WPSS. Meeting with the TML every Thursday gave me a balance. Although I could not discuss the school project with the TML members, I could discuss anything else. I always felt good after having lunch with them. It was as if being with them told me that I was alright and whole.

Hypothesis: Without a social contract for learning discovery, persuasion becomes more important in the intervention. You have to do a lot of selling of yourself and your intentions. If you have a good idea of the local culture (Gubruim, 1991), you can direct your persuasion and selling to the obstacles or hidden agendas that you can see (Shaffir, 1991).

Evolving Evidence: The problem in the WPSS was that I was not sure if the hidden agenda was to maintain segregated schools or to please certain financial interests in the ninety three million dollar facilities plan, or a combination of both, or something else. I suspect that different components of the WPSS together with other

agencies in the city had a myriad of agendas, some canceling each other out. It was very confusing. I had good ethnographic informants all along, but they would tend to contradict each other, especially around the school issue. Thus my suspicions had some basis.

Hypothesis: The notion of 'stay the course' makes sense when there is no social contract for learning discovery. As long as you are consistent, then the system that you have penetrated starts to understand your consistency. No matter how irrational that system acts or reacts to your presence, if you maintain a consistency, then there is some hope for trust building.

Evolving Evidence: With the WPSS, I never changed what I wanted or demanded. I was consistent with the building of the CST for the Transportation Model. I always told my inquisitors that I was an integrationist. I never wandered from either projection as a technologist and an activist. I never presented either role in a contradictory context with the other. I stuck to the scope of the project as referred to in the memorandum of February 6, 1991. The problem may have been that they, Wallop, did not believe that racial peace and equity was possible. They had been living in such an unfair state for so long; thus, I, an assertive Black man had to be seen in this context only.

While I imagine that the WPSS may have asked itself on various occasions what I was up to, I cannot imagine them

charging me with duplicity. They may have invented any number of innocuous images about me, but I never felt that I failed any of their tests for trust. They may have chosen not to trust, because not trusting is what they do. And, there is some global evidence for this.

One afternoon after a TML luncheon, Reverend YYY and I talked about Wallop and its people. I asked him if progress was possible here. He replied, ... " in Wallop most folk, Black or White, practice the 'crabs in the barrel' social psychosis. Real progress will come when people learn to trust each other in natural ways." Also the lack of invitation from the Human Rights Committee group to work together serves as additional evidence for this paradigm.

There was some question as to my 'change in role' that affected some dialogue with both the Staff and the press. I attributed this to the need for people to want to continue to see things in a way that makes them comfortable. It appeared to me that, whenever the Staff asked me what role I was playing, they were really asking me why I was changing roles on them. It was the perceived change that made them uncomfortable. Please see the "Angela" interview below for a similar reaction from the press.

Nevertheless, I felt that there were some genuine opportunities for trust. There were some instances with Dr. Edison when I felt that he wanted to work together. Also Mr. Byrd showed a sincerity for work that the other Staff

did not. There were clues and flashes of trying to bridge the gap. Unfortunately, I could not respond to the unchecked camouflaging that was taking place. I was not invited into the forum where it was being created and disseminated.

Hypothesis: You have to find a way to get your bearings in this type of intervention, otherwise self doubt entices you to make very silly mistakes.

Evolving Evidence: When I was first penetrating the WPSS, I did not quite know what I was doing. I did not know how to ask questions that were inquiring, yet non-threatening. I was so unsure of myself that I did not take myself seriously. I did this as a defense against looking at any mistakes that I was making. I spoke into a tape recorder as a means of reviewing what I was doing, but I did not go back and review what I had said to myself. Later, I started to write field notes. Everything changed then because what I had written was on paper staring back at me. It helped focus me and build my confidence. Using a microcomputer is fine, using a tape recorder is fine, but for me, writing made it all come together. Even earlier when I developed the statistical techniques for full integration, writing out what I was doing and going to do gave me a solid feeling. When I had my confidence, then I was able to use the microcomputer as a writing instrument freely. Nevertheless, when I have been stuck in composing

this document, I found that writing by hand for an hour or two truly cleared the air.

Hypothesis: Not having the social contract for learning discovery does not prevent you from discovering if learning is taking place.

Evolving Evidence: Back in Chapter Two, as I was constructing my sense of PAR theory, I said that I would observe if the potential for double loop learning was present. I did not define or describe how I was going to do this because I had to get some distance within myself from myself to see the process. I looked at the governing variables for double loop learning and asked what would reasonably imply that there was a propensity for these variables. I also asked if the absence of a social contract may affect how this propensity is defined or described.

For the governing variable, Valid Information, what I had to see was if there was, among the individuals of the Staff a public and open attitude of self-reference as an origin to dialogue. I looked at the way they presented themselves and how they took ownership of their ideas. It was important to my observations that they show a willingness to begin dialogue from their own sense of themselves and publically risk this self-reflection. With the ILT, Mr. Claude Frank exhibited this propensity, the others did not. Neither Mr. White nor Mr. Byrd showed this

propensity. Mr. Johnson did not show this, but I only had one occasion to observe him. This was in a meeting with Dr. Edison and the ACTON on May 29, 1991. Dr. Edison on several occasions did exhibit this trait. I have not seen any Board member exhibit this propensity, with the exception of Mr. Warren Boat when he spoke publicly at the May 16th Board meeting. I have wondered if my presence deterred or in some way influenced these individuals in this governing variable. I do not know. In studying the responses to Question One with the ILT, only one person used the impersonal "we" in describing what the data implied. The others were more personal. Also, newspaper accounts of Dr. Finch's recent statements indicate that he was being very careful with me. He is the only official (as of this writing) of the Staff or the Board that has openly called for the WPSS to confront its racially dual nature.

For the governing variable, Free and Informed Choice, it became a male/female issue. The men were all very controlling and singular with their power relations; the women were much more flexible and willing to share control of the speaking space. The women shared speech rights quite comfortably; the men did not. Mr. White and Mr. Byrd were always willing to meet with me as a team. Anytime I needed to talk with them, they made themselves available. Thus, I can see this as a potential for joint task control among them in that they are able to jointly respond to me as a

task. At the time I observed Dr. Finch, he appeared to see management in a hierarchical way. Dr. Edison appeared to be an island onto himself. It was hard to see how he saw task definition and management. I know that he supported the site management concept, but I do not know how he saw himself in this evolving infrastructure. A clue comes from the July 21, 1991, news story about him in the Wallop Currents, 'Making the Grade.' He is depicted as a loner who makes decisions only in a go/no-go form. If this is the case, then he covets power and would not be willing to share joint control of a task. My presence was a focal point for Mr. White and Mr. Byrd; I do not know if they work well together. They seemed to work fine with me. There was no competition between them. For other persons on Staff or the Board, I could not design a test to see how this governing variable played. This was because there was not enough time before the doors started to close.

For the Governing Variable, Internal Commitment to the Choice and Constant Monitoring of its Implementation, I looked for the propensity to publicly test local theories. Dialogue that would show an individual open and willing to confront questions about a theory-in-use was the evidence that I looked for here. Mrs. Little and Mrs. Benson demonstrated a willingness to confront uncomfortable questions. They did this by throwing challenges into the air. But this was it. There was no one on Staff or the

Board that I saw with any potential for this governing variable. My presence certainly affected this with the ILT, I suspect. This is because some of the theories-in-use of the WPSS are directly related to the racially disparate treatment Black children suffer. But how I affected this, I do not know, anymore than I know why the ILT would not meet with me again. With respect to the Board, I have never seen this governing variable in operation. Dr. Finch has on occasion exhibited some tendency to test local theories. He does this by presenting challenging data snapshots that confront a theory-in-use. But, I have not seen this as a diffused process. There is some anecdotal evidence in the interview with "Angela" below that some Board propensity to confront the racist theory-in-use has occurred. Unfortunately, it cannot be directly attributed to the sociotechnical intervention, but to the purely activist phase of this endeavor.

In summary, not having a social contract did make learning discovery difficult, but some insight was possible.

Hypothesis: When making a Sociotechnical intervention, it is important not to assume the technical or social skills level of the participant system.

Evolving Evidence: I assumed that the Staff knew enough Statistics and was familiar with Cost Accounting so that my intervention was easily understood. I was quite wrong here. I think that this may have affected a lot of

dialogue. I recall Mr. White not wanting to purchase the Atlas and GAMS software because he said that he did not understand it. I also recall the blank looks from the Staff when I spoke of the Normal distribution. I made assumptions that were not true. The reactions of both Mr. White and Mr. Byrd to the cost accounting questions referred to in Chapter Two told me that I should have handled this differently. I missed an excellent opportunity for coresearch here. I could have begun my cost discussions with Messers. Byrd and White from a discovery vantage point. I could have simply asked them what they thought cost meant and how did they use their definitions. Instead, I imposed my sense of cost without giving them a chance to contribute.

When I met with the ILT, I assumed that as educators, they were well familiar with Argyris and Schon, or Ethnography. This was not true. It was also a false assumption on my part that they were accustomed to relating cost data to instructional programs.

Thus, some of the resistance may have come from Staff who were intimidated by the call to mathematics and statistics. Also, the Staff may not have been accustomed to the type of content analysis based facilitation that I conducted. I did not test for this. Not doing so was a mistake. I could have simply asked people about their comfort level in these fields.

Hypothesis: PAR knowledge is biased. Knowledge in PAR comes about through provocation; you have to embed yourself into the participant system to coax or shape the knowledge that is to come forth. It is legitimate knowledge since you provoke it. The bias is integral to the research. The key is to be able to report your experience and findings in such a way that the community can provoke you into further insight about your experience or findings (Elden and Levin, 1991).

Evolving Evidence: During the tail end of the intervention, I would call key members of the Black and White rank and file, or members of the press and ask them for reactions to some insight that I was having. I was always interested in how clearly I was explaining myself. Much of my report was of a specialized and technical nature, so I tried to map what I understood to be happening to normal conversation. After a while, I realized that I was not being understood well, so that I needed to look at how I was going to make the final report to the Board.

Hypothesis: You cannot protect your experiences. You have to respect confidentiality contracts, but your report cannot allow duplicity to remain hidden. If you take a contract to intervene somewhere and part of that contract calls for protecting top management's hidden agenda in your final report, then your whole intervention is tainted with

you protecting the undiscussibility of top management's undiscussibles.

Evolving Evidence: In this intervention, I realized early that my sense of myself was the basis of me testing any local theory I developed about the WPSS. I could not lie about my research or its importance to me or the human rights movement in this country. Yes, I lied about it being my dissertation. This was a judgment call for self preservation. I felt that if I had said anything else, the 'crabs in the barrel' psychosis would have attacked with full strength.

I was always very candid with Dr. Edison. I shared confidences with him that I did not share with others. I told him about the education summit in Little Rock. I gave him the renaming suggestion about School C. I did all this because I did not want my final report tainted with his undiscussibles or his inability to face his undiscussibles.

The reason this is important lies in the evolutionary nature of the intervention itself. The race issue in Wallop is still working its way out. My report being created with clean hands, and Dr. Edison knowing that this is the case, allows the report to be used in the future when the WPSS finally confronts its race issue.

C. About Unsolicited Interventions (II): Construct Validity

Hypothesis: If you are lucky enough to find just one ethnographic informant that validates you and what you have been doing, then this activist-based exercise starts to make sense.

Evolving Evidence: I present a recorded interview with a newspaper editor, 'Angela.' Her name has been disguised at her request. This interview took place about one month after I presented my final report to the Board and before the July 17th challenge to the Board by the ACTON. The interview is presented without a running commentary because it is also serving as an articulation of a summary of the intervention with all the systems and subsystems that played a role in my focused intervention with the WPSS. It should be read as whole, then reflections come afterwards.

C.1. Interview With Angela

INTERVIEW WITH ANGELA

July 10, 1991

[This is Wednesday the 10th of July at 2:00 o'clock in the afternoon, I am in the Wallop Library and I am conducting an interview with a newsperson. I am deliberately disguising her name because of her sensitive position in the Wallop press. So we are going to call her for the purpose of this interview "Angela"; but, she is an excellent ethnographic informant and I will be

asking her a number of questions about everything.

We've just had dinner and we've had a pleasant time for the last hour or so, we had dinner and we conversed; we exchanged ideas and information. I informed Angela of what my intentions had been with respect to the intervention in Wallop, that is the with the attempt to help school boards develop the kind of social-technical sophistication that we felt was sufficient for them to handle a very complex problem such as student segregation; and, I told her that the purpose of today's interview was to use her as a witness to the events that, as she has seen them, as she has been looking at them for the last several years. I also told Angela that her value in this research is that her testimony, her witnessing testimony serves to assist us in building a base for the purposes of validity. This is qualitative research, not quantitative research and validity as we know is based very strongly on anecdotal evidence acquired.]

Ely: Ok, now that we understand each other I'd like to ask you this, Angela, how long have you been covering Wallop as a newspaper reporter?

Angela: For about three years.

Ely: About three years as a newspaper reporter; then you are currently an editor as opposed to a newspaper reporter?

Angela: That's right.

Ely: If you were to describe, let's put it this way, suppose you were on a panel of journalists, let's say there were three of you on the panel of "The American Journalism Society", and the special section was on how journalism takes place in small cities the size of Wallop, and you were asked to describe,

characterize, by attribute anyway you wish, Wallop. So, how would you tell your journalist community [about] Wallop?

Angela: How would I describe Wallop? A city of about 100,000 split half and half black and white, a city with a huge military presence and a dwindling business and industrial presence; so it is poor, blue collar or poor, a city that is run by and controlled by and very much influenced by, relations between its black and white halves.

Ely: How would you elaborate on how the city's outcomes, if you will, are affected by black and white relations?

Angela: Wallop is a city that faces enormous problems, in fact are more exaggerated than similar problems in the surrounding areas. For example, it has a declining tax base and decreasing ability to support the services it needs. It has no way to expand its tax base because it is so much owned by the government and its big military presence. It has old schools that need repairs and all sorts of reforms for children to get into. Lots and lots of problems, and the city has never been able to come to grips with any of this because it remains mired and unbalanced and common problems between the races. It just has never gotten its act together; it just has always stumbled on that old block of race relations.

Ely: Well, can you elaborate a little bit more on that in terms of how Wallop has always stumbled, you know we are talking about...you've been here about four years and you are talking about what you have seen in those four years, how...

Angela: Let me give you one example, ok. When I first came here, the Mayor, Mayor Gloria Falon, had just come into office and said much of what I just said, that this city had to get past its race problem or we are not going to make progress in any

other area. So to do that she activated a campaign office which was to put together a Human Relations Committee.¹⁸ This was a group of twelve people, six white, six black, had six women and six men, just split right down the middle, bipartisan, and it was suppose to deal with any problem that came up. It was suppose to help the council deal with these problems. It took a surprisingly independent and valid stand, and frequently told the council, "what you are doing is wrong, stop it" and the Mayor's response to this was to come in to one of the meetings without any prior notice to anybody and say "we don't need you anymore, you're disbanded." It was not a committee that had any power other than advise to her, yet she started a big controversy, just by the way she ended it....silly, very silly.

Let me think of another example. The school board was immobilized about a year out of the two years, I covered it because of the city councils refusal to make it balance [racially]. They kept, in the face of tremendous community urging of a balanced black and white board, they kept putting whites on the board. For a number of reasons there were a number of vacancies in this particular year. One member died, another member moved, and each of those instances when a vacancy became open instead of putting in black people who were qualified the council insisted on putting in another white, just totally immobilizing the board. The community was unwilling to trust that school board.

Another big example of how race relations stuns the city and schools. We have five high schools in the city with a school enrollment population that would in any other city support maybe two high schools, three if they were

¹⁸This is the same Human Rights Committee from Chapter Three.

small. Yet, the city cannot make what would probably be a very favorable economic decision to close some of the schools because that would force busing of white students into a black area or would close a traditionally black school. They have never been able to come to grips with an economic-academic problem because of that problem of race.

Ely: When you say you were covering the school board, for what years were you covering?

Angela: Oh boy, I'm terrible with dates. I covered it throughout most 1989 and 1990 and part of 1991.

Ely: So you were not here when Mayor Byron was here?

Angela: Oh no, what I know about it is simply some of the outcomes of that and reading about it extensively.

Ely: So you've described your understanding of Wallop, you see race relations as central to most decision making. I'd like to ask you this question. Why do you think that the city cannot reconcile these racial issues to move ahead and solve some of their problems? What do you think is behind...you are describing if I'm not mistaken, you are describing a sort of paralysis. Let me ask you this: are you saying that everytime the city attempts to solve a major economic or political problem that it seems to loop back into this racial quagmire and are you describing the racial quagmire as a paralysis that they can't please the blacks, they can't please the whites, and therefore, they make very mediocre decisions to sort of please people temporarily. Am I putting words into your mouth?

Angela: Well, I don't know if I would describe it exactly like that, but I can't disagree with what you just said. I think there are a couple of reasons for it. Number one is the history of the

city. Byron [was] tremendously embarrassing to the city. One of the first black councilmen, he was one of two that came in. The first black mayor, tremendously successful at first..then public humiliation in a terrible way. This is just not a man being called out of office, but hate mail, scandal and a recall, ...terrible, terrible for the city. Something, and about the same time, happened to the first black school superintendent; he came in....I won't get into all the history of it but you know what happen to Robert Terrance.

Ely: Were you covering Dr. Terrance?

Angela: No, again, I came in after he had left, again what I know about that is...I have interviewed and talked with Dr. Edwards, so I know about it from his point of view as well as the city's, but a tremendous feeling that ok now we gave blacks a chance, now look what happened. The council and the school board immediately reverted after the Byron-Terrance years to a white majority and it swung the other way. They had all these problems with School B High School and some of the other things I just talked about.

Ely: When was School B High School first proposed?

Angela: 1985, it was before I came in and the atmosphere was entirely different there was very little disagreement in the fact that School B High School needed to be replaced. It is a terrible school from the Sealane county days. It is a battered building and it needs to be replaced. There was an agreement in 1985 that the board would spend the money on it, but then what happened after that was an economic depression that made money more difficult. An awareness grew that to build a new high school would certainly take away money needed for any other capital approved projects, and with that sort of

commitment required, well maybe we had better back away from the project. Then city officials began pressing for the school. Their argument was that School B is the only area of the city growing. We need to put our resources in an area to continue to attract new businesses and people, but many of the residents and other officials in the city also know that School B happens to be run down because of the white neighborhoods in the city and how can you devote all your city's resources to a new school there, when schools throughout the city needed help. So the history of the city is a big reason that racism is a barrier; everybody remembers that and they want to avoid a problem like that again. You keep asking was I here, no, but you don't have to be here everyone knows about Robert Terrance and James Byron and all of that turmoil. That is part of the reason. I always maintain that another reason that Wallop has not got its act together is that there is just a leadership battle; its not just one person strong enough, popular enough and just brave enough to say: blacks I don't care what you think, whites I don't care what you think, this is what the city has to do---just brave it out.

Ely: Let me ask this then, during these times, during the period of time...the Byron issue, but I guess you weren't here then. So I need to start talking to you about when you came in 1987 as you say you were here four years. Would you say during the four years that you've been here that the Wallop community was well informed on school issues and define well informed anyway you wish?

Angela: Yes, I think they were well informed. I think the newspaper and they disagree about this, but I think the newspaper has always seen the drama and the conflict and the news worthiness of the Wallop school system. I think they have covered that. Though, also during much of this period, lots of public meetings

either city council or ACTON chambers or school board and those were all well attended by lots and lots of people, much more so than I've ever seen in other cities handling other issues. Lots of word of mouth about this, I'm the editor right now of The Currents; and we did a recent leadership survey and found that people wanted more news about schools even though the paper is already heavily rated with school news and has a tremendous penetration within the city. We have like a 90% penetration rate with The Currents. People in the city know about, care about, and I think have followed the school issues.

Ely: What do you think is the impact of school issues on Wallop outcomes, and what I mean by Wallop outcomes is something like this: what Wallop ends up doing, how it looks at itself, how it sees itself?

Angela: Well, you know the City of the Future conferences have pegged the need for an improved public school system as the number one problem that the city faces, not school system, not a segment, it is a problem for the entire city. I think it impacts on its ability to draw industry; educational systems is one of the first they look at; it draws on their ability to draw revenue; we have people moving out of Wallop or willing to pay tuition elsewhere to get their kids out of the public school system. The reporting about the public school system has made the city the brunt of so much negative publicity that it impacts on the city's much talked about poor image of itself and because of problems in the school system that is largely black, run by mostly white administrators, it is a microcosm for the racial problems with the city.

Ely: Before I came to Wallop, what do you feel were the school issues?

- Angela: Facility study, a decision by the school officials on what buildings to close what new schools or new classrooms or facilities to build. That was clearly number one and I think it still is; and also, who is going to run the schools after Robert Terrance left. They quickly went through another school superintendent who had a nervous disorder that rendered him unable to serve. They put an interim leader in who had no real stake in what happened. He was a man facing imminent retirement and had been a life long bureaucrat in the school system. So leadership was clearly an issue. Low test scores, violence in the school, inequity of services.
- Ely: After I came into Wallop culture what were the school issues?
- Angela: Still facility study, still test scores but with that added difference that we've got to look at, not just at overall low scores, but at the difference between white and black. School board performance became much more an issue I think.
- Ely: Really?
- Angela: I don't know if that was just you or the timing too. School board performance and representation.
- Ely: Do you feel that there was a difference in school issues before I came relative to after I came?
- Angela: No, I don't think there was a difference in the issues that needed to be addressed---school facilities, leadership, test scores all of those still are important. I think that what you did, though, was to force to the front what had been pushed into the background and that was the importance of black and white relations. The school board and certainly Dr. Horse, the chief administrator at the time wanted to say this is an issue that we

all face together, blacks and whites; this is for the good of the schools. I don't think they really feel that way; it wasn't true then and you forced them to come out and debate that, you and the ACTON.

Ely: Let's talk about that some more, when you said I forced them to look at the question of the difference on a racial basis. Are you saying what I did, my presence, my activism, my whatever you want to call it...and we'll talk about that a little later. But, whatever I did, I required or I helped set a tone where they had to talk about racial disparity as an issue itself, not submerge it under a general issue.

Angela: I think my opinion on that is definitely, you did. If I could give an example, the school board directed the school administrators to take a look at the facilities plan without regard to money, without regard to anything except what would be the best use of the school buildings available including neighborhood schools..."we're not saying that we want this, but lets take a look at what neighborhood schools would do, how it would work, would we save little children from having to walk to school." Mrs. Livermore, who was chairman at the time, an elderly lady who had been a school teacher for decades, said, oh, I think it would just be wonderful if little children wouldn't have to walk to school. Without saying that ever, that going back to neighborhood schools would mean white children would have schools close by and therefore, black children would have to be bused. There were no black schools in black neighborhoods. The administrators went behind closed doors and worked for a long time on a neighborhood school plan. That is what it was, the topic of black and white never came out in these meetings until you started screaming..."hey, you want to resegregate the schools"...overblown rhetoric which you yelled at me. But, that's just what it did and Wallop had

to deal with the issue of: hey, we just can't look at neighborhood schools, just as a kind of academic exercise, not in the city. That's one example to me.

Ely: Have you seen [this awareness] in the current administration, the Edison administration?

Angela: Yes, I have.

Ely: But you haven't been covering the Edison administration?

Angela: No, I covered the transition from the old to the new and I have edited the copy out of this; that means I directed this coverage.

Ely: But, you have been at least aware of some of this?

Angela: Oh, of course.

Ely: Would you say in the rhetoric of the Edison administration that this issue of racial disparity as an issue by itself to be respected is in their repertoire of communication?

Angela: Yes, I agree that that is a big change that I see than before. There was this Gloria Pence/Jack Horse scenario that race is behind this; we are making decisions that are above race in this case---ever since Edison came in...brought in by a board very much aware of the problems and of your presence. His talk has been, "we have to make sure things are equitable, we have to take a look at test scores and equal facilities." I don't think that I've heard that before.

Ely: Now let me ask this. You have been for the last four years sensitive to both the black and white, rank and file; would you say you know or feel comfortable with, if you were to create a secret list inside yourself, identifying the white and black movers and shakers in this city? Do you feel

pretty confident that you would know who they were?

Angela: That is my job to try and get in contact with those people, so yes, I would hope that I could get fairly close.

Ely: Would you say in the terms of the black and white movers and shakers that their repertoire of communication language has changed consistent with my presence. In other words, the black and white movers and shakers, before I came in 1989, spoke a certain way, and now its 1991; do the black and white movers and shakers talk differently now? And you don't have to specify names, of course?

Angela: Definitely the ACTON has become a player that it hasn't been before, Ted Milner...before you, could never have done it, so that's clearly a yes. The School Board, yes, much more aware, after the Resolution. They were at least careful about how they dealt with decisions. Yes, I would say that the City Council, yes I guess I would have...we've had some movement as you know on the City Council... whose on there, partly coincident partly as a result of the issues you raised. There was a turnover in the members on that Council, so are they aware of some of the issues and speak about things they didn't before...yes, I would say that. So that's three groups I named without even thinking to hard. I guess my answer to your question is yes.

Ely: That's official then. What about the business community, the power brokers the ones that are rarely in the newspaper behind the scene. Those people that you talk to ever so often, would you say their repertoire has changed?

Angela: Yes, I guess so.

Ely: Do you think so, or do you have anecdotes?

Angela: I'm trying to think of a case...Tory Race...you said somebody whose name doesn't normally appear, it didn't used to; it is increasingly now, so I don't know if that disqualifies him. But certainly, he called the newspaper looking to get a hold of Ely Dorsey, the ACTON man, to talk with him. He wanted to involve you with what he was trying to bring about---reform. Another good example is Mike Robinson, who is a parent activist "gadfly", one of these guys who is always at all the school board meetings, knows more about school affairs as it turns out than anybody on that school board. He suddenly began talking about some of the issues that you had raised. Yes, that indicates to me that there was a difference, and again I guess I'm not willing to say it was just because of you.

Ely: No, were are talking about presence? If you were trying to access your conclusion that there had been a change in the repertoire of dialogue among the movers and shakers [who] now openly speak about the racial disparity issue as something they must confront. If you were to try to create a test as a reporter. How would you do it? How could you try to--- quote unquote--- prove your opinion that there has been a change?

Angela: Content analysis, go back and look over...I mean school board coverage is simply...looks at what is most important or dramatic, things that go on at any meeting. I would look before and after your arrival date. I'd do that and see what sort of issues were raised. I'd look at the goals of the School Board and the City Council which change each year and see if there had been a difference there. The School Board used to talk a lot about communicating with the public. I don't know if that's there so much now and when I think back on troubles...list of goals, I see much more academically...you know what I mean...academically is the best

word...scholarly days when they used to be. I'd do what you're doing now, I'd ask a lot of people who were there before and after. No other thoughts.

Ely: What body, pieces of bodies of evidence would you as an experienced journalist look for to tell you that your opinion is incorrect?

Angela: I would talk to people who don't like you, don't like what you stood for. I'd go right to Gloria Pence, for example, and say "do you know that officials are more aware of racial disparity issues now than what use to be?"; and listen to what she said, her answer might be indicative, but she might also give me a place to go to prove you wrong.

Ely: To prove your opinion wrong.

Angela: To prove my opinion wrong, that's right. Because my opinion as I have stated is that there has been a change, right?...people who want to disagree, who it would be in their favor to have the opinion be wrong, I'd go to them and talk to them. Documentation, we are talking about school board minutes, news clips, panel content analysis, that's pretty powerful stuff. I'd talk to people who had been on the school board a long time too. I'd go to Brad Guy, and Tad Cherk, I'd talk to Rondel Edwards, whose out of it and the list of ex-superintendents you know, who supposedly has nothing to lose right now, like Cherk. He is the guy who was there even before Robert Terrance...the only white guy. I can't think of any documentary sources other than clips and school board records, school board minutes.

Ely: Now, I'm going to sort of switch it. I will tell you after I finish the interview what I've been trying to do in terms of the interview, so you know because I think it is important that you know, we are both professionals and you should know how I'm interviewing and

what I'm trying to do. Now I want to switch it a little bit and I want you to think about this before you answer--- that's a terrible way to ask a question. How have you seen me over these last two years and that's about as general as I want to get; I don't want to get too specific---and, answer this anyway you want. How have you seen me over the last two years, and I may write some things down as you are talking?

Angela: You have been a puzzle, and I've told you this in the past; you have been a puzzle to the newspaper. You burst on the scene, if I can use that overstatement, out of the blue, suddenly, you are at public meetings speaking very badly and forcefully in a know-it-all way and who the hell were you. You weren't a Wallop person; none of the movers and shakers knew you. Yet you came here obviously knowing the issues and with a ACTON title which was the best that we could have. It gave you credibility when ordinarily...you weren't a parent, you didn't have a stake that we could see. We didn't know what your motivation was and then you played this game where you weren't talking to us [the press]. You just growled at us and went on your way to establish the CAS; you did not explain yourself to us. You were a very difficult person and then, of course, as it went on, you began having a bigger and bigger influence over what the school board was doing, and culminating in a Resolution which was clearly...you prompted school officials to make remarks to you, directed right at you so that you couldn't be overlooked, and we had a hard time deciding. Oh, and I need to add that you weren't just making small points, you were saying outrageous things,... "this is a resegregation of the school system. This document, that facility study that is under study, is to set up a dual school system. This was really insidious...." which we would normally shy away from; so we were always aware that if we printed what you

said we would be giving, of course, greater readership, greater credibility, and there were lots of discussion about how to deal with you. Does that help?

Ely: Well, you didn't answer the question, but you are getting at it...I mean...

Angela: I thought you were a jerk at first (laugh) you know when you were at Johnny Clemmon's meeting you suddenly told the reporters that we ought to pay attention to this man, and we said "ok who are you," and you said "that's for you to find out." But you began increasingly after that to make sense, oh your connection with Brad Guy, of course, mattered with me because I do respect him, and have worked with him, covering him on school work, for a long time. So the fact that he liked you helped, and then I covered the Martin Luther King celebration at the Third Baptist Church and you gave an impressive presentation that was well perceived. You don't arrive to an important position in the ACTON if you are a jerk; and, of course, I found out a little more, you have a degree and that you were working towards a degree. You had a background, and that what you said was not ranting and incendiary, and also that you were very calculating...I mean I knew full well this was a position that you were taking, shrewdly, to make us cover what you wanted covered; so, I thought that you should be taken seriously, and I also thought what you were saying was something that many people felt but did not articulate it as well. And, you were like the face of the school board saying it, and, if nothing else, that was dramatic in the thrust. And, of course, we did an interview and I began to see more and more of the way you were working. You plainly were connecting. You were not just someone shouting in the face of the school board. You had people who were feeding you information from inside the school board, inside the school system; so obviously you were being taken seriously by people other

than me. So that certainly built you up in my eyes, and they began telling you good stuff.

Ely: Let me try to come at the question another way.

Angela: Ok.

Ely: Remember there are no right and wrong answers. But your impressions are extremely important. Do you think that I changed hats in the last two years?

Angela: Yes, we talked about this after the Resolution was passed and you were acting like you had made this tremendous victory, right, and I said, "what are you talking about, they passed this resolution---they don't even believe in it. You have to keep pressing, aren't you going to keep pressing to prove or to press home the point that what they did was more than just...we just passed the Resolution, [to]shut up Ely Dorsey;" and you said, "no," remember we had a long discussion about that. I was so pessimistic about the city that I didn't understand what you had done, which was to educate the board and make them see things in a different way. I felt that you had quickly backed off as quickly as you had come on the scene. You left it, you had this new role of helping the school board with the ODU study and it was like you were working with them and everything was fixed, so yes, there was a change.

Ely: What did you think of the change?

Angela: I didn't understand it.

Ely: What do you mean you didn't understand it? Do you mean that it appeared that a different persona was on the scene, or that I had changed roles and you didn't understand I had changed roles?

Angela: I thought you had changed strategy, and I didn't understand that you had regarded passage of the Resolution and

your piracy, if I can call it that, to do the Transportation Study as the final goal; and, I had never considered that that was your final goal. I thought there was something else that you would be after--- an actual re-integration of the schools...you know something more dramatic than a resolution and the go ahead for the Transportation Study, and so I knew that you were housing up, if I can put it that way for shorthand sake, with the school board and working with the numbers trying to show that you were not a rabble rouser, but serious at research. But I did not know what the final outcome of all that was to be. Does that make sense?

Ely: Yes, why do you think you didn't know?

Angela: Well, you always told me it was because my views of politics were always so traditional that the city was going to keep messing up. That might be part of it, that I [had] much less faith in the school board and city council doing the right thing than you did. I still have that, I still have that cynicism. I guess if I'm honest with myself, part of it is disappointment because you are a much better copy when you are a rabble rouser.

Ely: Yes.

Angela: Its much easier to understand it... you know ... you are a Black man that is angry with the system messing with Black people, that is real easy to understand. What are you doing now, what are you doing now...you know, its just easier to explain than the original, the role I saw you in.

Ely: If you were to define me, if you were like a year from now and someone was reading through press clippings in the Wallop "Currents", I can say that since you said it, ok? {She nods approval} Someone was reading through press clippings in the Wallop "Currents" and they were saying, "hey, this is very

interesting that happened between 1989 and 1991, but this is strange, this is different. What is this all about? How would you describe that phenomena, what you have seen, to somebody who hadn't seen it like you had?

Angela: I guess the shortest shorthand for it is turmoil. A school system that had put off making some important decisions for a very long time, boxed themselves into a corner and they were forced to come to grips with issues like its school buildings and racial policies and personnel, if I can lump that in with that, and our voters forced them to do a turning, our councilmen who weren't putting people adequate to the task on the school board. The voters demanded it, and they made a stab at it, they at least tried it. I can't tell you right now whether that effort has been successful.

Ely: If you were to describe me to this person over the two years, how would you do it? You've described me to me through you. You've described me through you back to me.

Angela: I probably would say an ACTON agitator that scared the death out of the establishment.

Ely: Why would you say it like that?

Angela: That was certainly the part of the role that you took, the confrontational deal with it,..." guys I'm here to make sure that you deal with it," right?

Ely: Right!

Angela: I think that's a very accurate description of you (laugh) I would do it that way.

Ely: Let me try it like this then: when John wrote his story on the research report in June of this year, did that give a different view of me?

Angela: That's interesting, because I was an editor on that story and we talked about how you had to be described in that story, because you had done serious research...you know... you see... whether or not you were sincere or not the board didn't know, but you did switch roles; you went from being the agitator, the criticizer to ok, ok, you've made a concession here, you've given me this Resolution, now I'm going to work with you. I'm going to give you this present. It's from ODU and I will help you, because you are going to do now what I thought you should, and so let me help you do that. That was a different role. The board didn't know whether to take you seriously, I didn't know whether to take you seriously. The report would surely prove that you had taken the assignment seriously, and so we discussed carefully how you ought to be described in there, so that you didn't come off like somebody not credible and not to be doing the research. You've always had this dichotomy, whenever the paper has tried to describe you, between being a guy capable of making outrageous statements in public to a serious Ph.D. in a field that's inexplicable to many of us.

Ely: Would you have liked me to be one or the other?

Angela: No, that wasn't it. I would like you to have spent more time explaining to me from the beginning what you were all about, rather than me trying to run in all different directions trying to figure it out.

Ely: Do you like what you discovered?

Angela: Oh! Yes.

Ely: Why do like what you've discovered about me?

Angela: Because at the beginning I was saying to my editor this guy is for real, we've got to cover him, and they were very

skeptical, and so you proved my opinion of you correct....[my] selfishness.

Ely: Ok, no that's alright, I'm going to a tell you why I asked those questions after the interview ok, because its no good while the interview is going on. How do you think others have seen me over the last two years...now, the whole two years?

Angela: You've got to break that into groups.

Ely: Anyway you want to do it.

Angela: When you first began coming, the Grant Livermore¹⁹ school board did not like you at all, you were a problem to them. You were bringing criticism about their facilities plan before it was released to the public. Remember, they never did end up releasing it. I think you are partly responsible for that. Blacks in power positions, like Jane Smith, Brad Guy, liked what you said, but were afraid to be associated with you because of the fear you invoked in the White establishment that we talked about. I think that was their opinion at first, people at meetings, like me, kind of like that, you are raising all this stuff, saying out loud what's on everybody's mind. But, they also thought that you were also some kind of a kook; and then as it changed, like me, more and more doubt about just what the heck you were doing....skepticism about your report, the transportation report... would it really be anything worthwhile; and then, I think I'd have to say that you did earn the respect of certainly the school administration. When I see Dr. Preston Vale, for example, talking with respect for what you've done, that says something.

Ely: When did he do that?

¹⁹Mrs. Livermore was the chairperson of the School Board at the time

Angela: In interviews, just talking to the press. He's not, of course as you know, in the position of power anymore, but he certainly knows it all, so we talked to him. You've changed...we haven't talked much about this, but of course when you were working even within the ACTON, the state [ACTON] structure got back to us that you were not to be trusted, to be represented as someone who spoke for everyone, which also called you into question. But, as you look, it has become more of your organization that it was when you first came.

Ely: I'm going to say to you, and I'd like you to react to it, ok? One of your colleagues yesterday, John made the following statement to me. He said, "we've never known what you were, a researcher or activist." Can you react to that?

Angela: I think I've said pretty much the same thing with the view that if you are an activist, if you're setting out to prove a particular point, how good can the research be? And yet, you have a report that no one has backed away from, and you have the, respect of, colleagues at ODU. Yes, that's true; that's true, it would have been much easier for us to copy as we mentioned much earlier if you had been one or the other.

Ely: Have you ever experienced an activist researcher before?²⁰

Angela: No.

Ely: Do you think there is a genuine concern in the community, we're basically speaking rank and file, both Black and White, about this issue of activist researcher. Do you think there is a genuine concern, and, if you do, how is it being manifest?

²⁰I asked this question because this is one view of what a newsperson is.

Angela: No, I don't think there is an active concern. I think [the] rank and file, they just look at what issues you raise, that an official is going to respond to, that will affect them. Do I think they are debating the ethics of a guy who has a point of view doing research in that field? No, I don't think so.

Ely: Ok, are there any questions at this time, that you have hesitated in asking me over the years that you would like to ask me now?

Angela: No, I've asked you long ago. I've asked you everything.

Ely: So, there is nothing more that you wish to ask me?

Angela: Well, I'm still always interested in your opinion of what happens now, what had you planned what was the part that you planned versus how things changed? Did you expect, for example, for that Resolution to pass. You acted at the time as if this is what we counted on all along, of course,....[Ely to Angela] "if you hadn't been such a pessimist you would have seen it." I never believed that; I still don't.

Ely: I believed that the opportunity for the Resolution passing was better than 75%. I've believed that all along. I did not believe that the school board would appoint²¹ a sixth White person to the board and when they did that and your newspaper ran it on the front page and, of course, it got to Capital City because Capital City called...I mean it got to Capital City...there is no question about that because, of course, The USAn~ Pilot is read in Capital City...it got to Capital City, and there were a lot of phone calls from Capital City down to Wallop as a result of that. There was great concern over that. When

²¹The City Council appoints members to the School Board.

that happened, I had this feeling, I just had something inside me, I just had this feeling that it was going to go through, and it went through.

Angela: And were you convinced all along of the importance of that Resolution?

Ely: Yes, the Resolution was important because it gave an opportunity for a community who had been avoiding discussing something, it gave it an opportunity to discuss it; that was its purpose. You've pinned me many times, even in your interview with me when you said I was trying to teach the school board. What I was trying to do was to teach the community to learn about how it learned about itself. To get it to confront questions and really confront them because as long as they didn't confront them, these questions would remain undiscussible, and the undiscussible becomes almost an act of tyranny.

Angela: Did you miss it when you switched from activist to research?

Ely: No, not at all.

Angela: Did you get cooperation from school officials?

Ely: Yes, I got a lot of cooperation from the school officials,... just about anything I wanted.

Angela: They never expressed doubt to you?

Ely: Yes, they questioned me all the time; they said, "what are you, an activist or researcher", ...[Ely answers] "a researcher, but you all know my politics, my politics are very clear about integration." I mean there is no debate about that, I mean everyone in this town knows what I want, I want integration, so they never...

Angela: Do you think that your research will be put to use?

Ely: I think that my research may be put to use. A lot, I think, is going to depend on how your newspaper does it, because I am now becoming more and more convinced that in a small town like this, the local community newspaper...I'm talking about the Wallop Currents which is really a peoples local newspaper, that how you cover a story in, like, the Thursday edition or weekend editions becomes central as to how people get their information. The reporter is involved, I mean John and I spent nearly two and a half hours yesterday reviewing the methodology of the structure that was behind the [report]...He made sure that the data I was using was coming right out of Iowa data. He had to [do] some checking, he had to make sure that the data was legitimate. I understood all of that. I helped out as much as I could, and he finally understood everything I was telling him. Now if he does a good report and makes his presentation and sells this to the community, then I think the community will have the information they need to have intelligent conversations among themselves about it. But right now, all the community has is a headline and two statements: one from me and one from the superintendent that you've got a dual system. How do people make sense of that? How's that explicable? How do I explain that in my bridge club or my garden club or my church club or anything like that? How do I explain that, how do I really talk about this in the chamber of commerce?...I mean "give me something to put my teeth in." And I think that that report by John is probably going to be focal...I mean its going to be key. If your newspaper doesn't do an in-depth coverage, full blown, in-depth analysis presentation of this, then the community misses an opportunity to get information. My opinions are my opinions. I mean John can get other opinions with counter opinions, that's perfectly alright, that's fine. But the importance is for the community to talk about...

Angela: You are back in your activist role now?

Ely: Oh! Yes.

Angela: And you have to get display of your views?

Ely: No, No, No.

Angela: I didn't say a good or favorable display; you just need a display of it all one way or another.

Ely: Well, I think I need the community to try to discern the information and decide for themselves how they are going to deal with it. I do not think the community can respond to this either from my point of view or from the superintendent's point of view, which in this particular point is rather coincident. We have coincident points of view, unless they[community] have data. They need...all I'm saying is they need the information. Remember back when you convinced your editors to publish the Anti-racial Segregation Resolution? Well, the significance of that is that the community had not seen it. Wallop had not seen that Resolution and when they saw it, from what I understand, your newspaper got many phone calls and a lot people have kept that article simply because that Resolution was something they wanted to treasure. Both Black and White people have kept that article and they know what that Resolution says now. All I'm trying to say is, regardless of my own particular personal political agenda, as you well know is integration, the research that I have done is significant in the community. If you say the study's all wet, we discredit him or that's fine, he's made some points of this and that, it doesn't matter. If the community has the opportunity to see the information graphically and other ways, at least they can say, well you know we've got some problems here; let's figure out how to solve this stuff. Plus [the] transportation part,

you well know, since you saw the report that John has, also produces [a] means of integrating the schools at certain levels 25, 30 percent, etc., this kind of thing. It gives a very good methodology about how to do it, so I think, in my opinion, this is very important that the community know full well that the means to integrate the schools in September is there, we have given them [Board] the software and the model by which to do it. So all they've got to do is do it. The high schools. The elementary schools are different because of the middle school concept and all that construction, we understand that. But, at least if they do it with the high schools in September it gets the community prepared for this, and you're doing it with big kids. People will feel a lot more comfortable; these things will go along pretty nicely and I think after that happens this year, then come 1992 when they have to integrate the elementary schools, then people will get much more comfortable with that. That is the reason I myself am advocating a push up for integration now, because it's just common sense; you have to do it, you can't get away from it. I mean there is no way around it in this city, no way to survive...there is no way.

C.2. Reflections On The Interview With Angela

I see in this interview, support of my initial premise that the WPSS is beset by the undiscussible: race relations. I further see confirmation of the need to study the impact of multiple role playing in an intervention. With this last insight, I see the need for very careful study of the issue of self-reflection and reliability.

I see that I was able to influence the thinking of the Board as well as the Staff.

The interview also validated the influence of the many subsystems in the Wallop community on the WPSS. Interestingly enough, the role of the press as a subsystem unfolds during the interview. The press is seen as an integral part of the absorbing operation of the Board: Angela never poses self-reflective questions about the role her organization plays in the confrontation or lack of confrontation of the race issue in Wallop.

The interview also plays a narrative role and in so doing, it becomes a witness to the events that have taken place in this intervention. It becomes testimony to what I have seen and reported. It does validate my self-reflection because Angela does not know of my self-reflections. She makes her observations without foreknowledge of my conclusions about the WPSS, and before the ACTON on July 17, 1991 challenges the Board. It is this independence that

yields confidence for the construct validity of the intervention.

Earlier in Chapter Two, I reflected upon the co-researcher role into which the participant and the interventionist are systemically interwoven. Validation, that is, spiral validation takes place because of the social contract for discovery. Here in Wallop, there was no such contract. Furthermore, latter actions of the Board and Staff demonstrated a movement from any joint finding effort. So then how is this PAR? It is the role of the press that makes PAR possible, in that the press is the medium and mediator of co-research. Most of the co-research validation cannot be reported because it is found in newspaper clippings that my dissertation committee will not allow because of the fear of litigation; but there are hints of the propensity for this validation in the interview with Angela. Consider Angela's description of the system interaction in Wallop, "it[Wallop] has always stumbled on that old block of race relations." I knew that this was the case, the officials of the WPSS also knew this, but there was no opportunity in this research for the WPSS to confirm this with me. The press does. It acts as a witness to the intervention. In this way it transmits what the WPSS and I are discovering. And what we discover is that race relations are the stumbling block Angela describes, and that we will not discuss this in an operant and public way. This

is further confirmed when Angela describes how the Human Relations Committee is disbanded by the Mayor: "we don't need you [Human Relations Committee] anymore, you're disbanded." There was no discussion of why the committee was disbanded and why it was necessary in the first place. Here you have evidence of the self sealing nature of the city administration and the WPSS.

Later in the interview Angela reflects on the controversy surrounding the construction of the high school in the affluent White section of Wallop. She couches the controversy in the race relations quagmire reviewed above, but she also calls for a problem solving construct that is pyramidal: "...not just one person strong enough, popular enough and just brave enough to say: Blacks , I don't care what you think, Whites I don't care what you think, this is what the city has to do...." Here we see that the press is not a detached observer. Clearly, Angela, an editor influences the understanding and transmission of news. She sees the solution of the Wallop problems in terms of one leader, one person. She doesn't see the need for self organizing systems. When I challenge her to reinterpret the meaning of the Resolution, she insists that the underlying social infrastructure is still in tact and that change is not apparent. When I challenge her to reconsider the meaning of the City Council elections that threw out three White male segregationists in 1990, she again denies that

the social system has changed. It seems that she keeps seeing the city as this rigid construct between Blacks and Whites that can only be changed with the correct leader, but she doesn't see that her continual calling for this solution method, reinforces the very construct she wants to see changed. Thus, the press is a reinforcer of the Model I system in which Wallop finds itself. And we see the validation of the inclusion of the press in the outer band around the WPSS (Please see Plate 1).

In the remarks made by Angela about how the dialogue changed after I intervened, I see the validation of the value of information exposure in an intervention (Argyris and Schon, 1974): "Still facility study, still test scores but with the added difference that we've got to look at, not just at overall low scores, but at the difference between White and Black."

The investigation of multiple roles in the intervention is far from complete, yet its richness as a research area is amplified by Angela, " You have been a puzzle, and I have told you this in the past; you have been a puzzle to the newspaper." When I asked Angela if she was uncomfortable about my multiple role playing, she didn't answer directly, except to imply that she would have preferred me in a more traditional role of Black militant versus change agent. She didn't understand clearly the value of the sociotechnical intervention with the school

board, nor the WPSS. She wanted me in a way that would make 'good copy.' She didn't reflect on how the WPSS was interpreting me in these multiple roles but I was able to do so in the interview. At the end of the interview, I switched roles with Angela and set in motion a process by which she started interviewing me about my multiple roles. I was hoping that by her questions, she would do some more reflecting on the impact of this multiple role playing. She eventually asked, "Did you miss it when you switched from activist to research?" I took this to mean that she saw value in the different roles that I played. She did not ask me about simultaneity of roles. No matter how I tried to get her to ask me about this, she perceived my roles as separate from each other. She also implied that I was a protector of the 'system' in that I had settled for a transportation model, and not a genuine act of racial integration. This I found quite interesting in that it coincided with my conjecture that PAR interventionists are protectors of the hidden agendas of the top management that hire them. While this was certainly not my goal or intent, it appears that there may be grounds for this PAR role in a passive sense. An interventionists may be able to go only so far in the intervention because the behavioral constructs of the system are very rigid. Thus the interventionist, somehow settles for what s/he can get. This in turn appears to an observer to be an act of protection of the stratus quo

by the interventionist. Further research in this area appears to be forthcoming, namely the difference between passive protection and active protection. They are both collaborative actions, but they may have different impacts on the PAR interventionist.

CHAPTER FIVE: Concluding Remarks

A. Closure

Some exercises call for a sense of closure so that meta-reflections can have an opportunity to enter the dialogue. This writing is one of those exercises, and I proceed in a summarizing way. It has been shown that:

1. PAR is possible in an unsolicited setting.
2. Construct validity and reliability questions in PAR require intense self-reflection when the intervention is activist driven.
3. Unsolicited interventions have to be focused so that reporting is possible, but the interventionist is impacted by other systems and subsystems that can be viewed in a translucent way as the intervention unfolds.

B. Directions On Future Research

B.1. Unsolicited Research

This experience of penetrating a government system, and then proposing to help that system bring about the agenda of the penetrating group is not uncommon. Activists

have been doing this for some time. Environmentalists, ministers, politicians, lobbyists, journalists, to name a few, have done this type of thing calling it by different names. This is not new. What is new is calling it a discipline to be studied and researched. The value here is that you can build a reliability base for learning interventions. In such a way, you can ask questions that have a legitimacy to them and are not dismissed because of their activist context.

The idea of an Objectivity Continuum is very rich for research. Not only is the construct validity importance contribution challenging, but its role in scientific conversation and communication is wide open for exploration.

The continuing challenge of establishing a public dialectic also brings to the forefront the purpose of sociotechnical interventions. Not having a social contract for learning discovery does not deter discovery; thus, a reexamination of the meaning of closed systems coupled with the meaning of social contracts for learning discovery appears to be warranted.

These research questions also generate another question as to the true differences between solicited and unsolicited interventionist research. Are they a matter of

degree or of fundamental description, yielding different outcomes no matter what the research design?

It appears to me that these basic questions have a purpose, since the issues of evolutionary local government technocracy and electronic democracy are upon us now. Some of these local governing bodies may be unable to see for themselves what they need. Unsolicited interventions of the PAR type can bring to the forefront a self-reflecting medium for these governing bodies.

B.2. The Role Of The Press

In my intervention with the WPSS, the press was invaluable. Could I have done it without them? I do not know. Certainly, fewer citizens would have been informed of the dual issue through the newspaper stories. Clearly, there are questions as to how to include the press in such an unsolicited enterprise. In small towns, as we have seen, newspaper offices can be interwoven into the local culture to such an extent that quality reporting is meaningless. A final note on this issue: one must be mindful of the level of technical expertise of the reporters with whom you work.

B.3. Technical Knowledge And Interventions

An area that is connected to the last sentence of B.2 is the relationships among management science, operations research, cost engineering and local government operations and planning. PAR supports developing their relationships for the establishment of CST's. I think we have to be mindful of the percentage of citizens who are schooled in these disciplines, and how many of them are government officials. Thus, the learning of the disciplines themselves becomes a strategic issue and question within the intervention.

B.4. Multiple Roles

This area of multiple roles is quite lacking in intervention literature. I do not think that we understand it very well. It puts a higher order of complexity on research and research reporting, yet this is precisely what interventionists are: complex, many role, players with participants who are being asked to be single faced. How the interventionist appears to the self must be reported. Without that, reliability is very tenuous for other researchers. What may be interesting to see is how PAR researchers see themselves.

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Appendix One: Enrollment Analysis

The original Enrollment Analysis was a separate document that has been incorporated into the Report The School Board which follows immediately below.

Appendix Two: Report To The School Board

Special Report on the Ethnic and Racial Composition of the Students Enrolled in the Wallop School System Based on Raw Data Published by the Wallop School System, November 5, 1990, And the March 1990, 1991 Iowa Standardized Test Results For Grades 004, 008 And 011, Reported to the Wallop School System by UNISCORE, Incorporated.

Purpose:

This report seeks to accomplish four aims:

1. To demonstrate where the Black and White races are enrolled by grade in the Wallop Public School System (WPSS)
2. To answer some common objections that the enrollment analysis will produce,
3. To analyze the standardized test results by race.

4. To put forth a Transportation Model that will enhance the desegregation efforts of the Wallop Public School System (WPSS).

Methodology:

We address the first aim by examining racial enrollment concentration by grade in two ways:

1. The 75% Bulk Method, and
2. The 100% Matching Method.

The first way answers the question, "where are most of the students by race located in a particular grade, regardless of any scheme to assign them to a school." The second way answers the question, "given the mandate for full racial integration, where are all the students in a particular grade?" This latter method seeks to determine if the two races are proportionately paired in each school where they co-reside." We excluded K4 and Special Education and Other Than Black Or White Students from this part of the study. This means that our study base is 18063 students, and that Gifted and Talented are included, but no other extraordinary

group is included; that is, our study base is normally distributed {bell shaped}.

The second aim is presented as a series of stated objections with answers supplied addressing those objections. These appear in Appendix 1.

The third aim is presented as a tabular display of the 1990 standardized test results by race by grade by school. The 1991 test results are scrutinized more deeply and presented in chart as well as statistical format. We present only grades 004, 008 and 011 since those grades are the subject of Commonwealth scrutiny. Furthermore, as the literature reports, these grades are pivotal in assessing any school system. We examine the literacy core: Reading Comprehension, Mathematics, Language and Total Composite Score. We use the 49 percentile as our Grade Achievement Index. {The correlation between the 49th percentile and grade equivalency is about .97 for grades 4, 8 and 11.}. We study the two races by test by grade by system by deviation from the 49th percentile. WPSS tested other grades in both years, and that data is available.

The fourth aim is addressed as a series of simulations given the WPSS School Board guidelines as a base. We also introduce other criteria in light of our definitions of full integration. (Recall our earlier discussion that our

definition of full integration is not to be taken as the end all on this matter. It is an attempt to avoid arbitrariness in a consistent way.) The transportation model is well known and its methodology was presented to the School Board in November 1990. We have adapted it to the WPSS.

Findings:

Using the 75% Bulk Method, we found that, Black and White students are not concentrated in the same schools; that is, they are not attending the same schools in the same grades in similar percentages of either race. In particular, we found that 45.3% of the children, in each grade, 0KE and 001 through 012, were attending school groupings that comprised approximately the largest 75% of both races. BUT 54.7% of the children so described, were attending school groupings that did not comprise approximately the largest 75% of both races. This means that only 45.3% of the children were in fully integrated settings by the meaning of the 75% Bulk Method. This is explained further below. Furthermore, this distribution of racial concentrations had nothing to do with a school's capacity, special programs, such as Gifted and Talented, or accidental chance.

When we asked the ancillary question concerning where should the students be, given the mandate for full racial

integration as prescribed by the 100% Matching Method: if the proportion of either race in a school in a grade was within +/- 10% we called that a fully integrated setting. We determined that only 9.25% of the children were enrolled in fully integrated schools.

This study suggests that these racial enrollment concentrations are a result of poor desegregation program design. This conclusion was further supported by our simulations with the Ninth Grade in our Transportation Model. In particular, we found that this full integration percentage can be greatly improved with very little burden to the pupils. Furthermore, we found that bussing out of School B in most instances was minimal or not necessary to improve full integration. Since WPSS does not have a full time functional Transportation Department, it is not surprising that this improvement has not been forthcoming.

When we studied the March 1990 Iowa test results in Reading Comprehension, Mathematics, Language and Total Composite Score, by race by school by grades four, eight and eleven, we found that the Black children test groups, as groups, consistently scored under grade level; and that they consistently scored below their White counterparts in the same grade in the same school. The only counter examples to this finding occurred in the fourth grade at School 12

Elementary. There Black children consistently scored higher than their White counterparts in the selected test subjects. But we have to caution the reader here. When the tests were taken at School 12, only 3 out of the 40 children who took the test were White. This low figure casts doubts on the validity of any comparison conclusion at School 12.

Also Black fourth graders scored at or above grade level in the Language test at School 1 and School 2. At every other test instance for the fourth grade, 46 out of 48, Blacks scored below grade level. Whites, correspondingly, scored at or above grade level in 26 out of 48 test instances.

In the eighth grade, there was no instance of a Black test group testing at grade level or above; and in every instance Black test groups scored below their White counterparts.

The only instances of White test groups scoring below grade level occurred at School A HS. White test groups scored at or above grade level in twelve out sixteen instances.

In the eleventh grade, nearly all Black test groups were consistently below the appropriate national test average, except in the Language test at School C. With the exception of the White test group in Mathematics in School A HS, all White test groups scored at or above the appropriate national test average. Consistently, all Black eleventh

grade test groups scored below their White counterparts in the same school.

This does not mean that nearly all Black children tested below grade level or below their White counterparts. It means that on average per school, nearly all Black children tested below grade level and below their White counterparts.

We decided to study the 1991 Iowa results more closely than in this tabular format. We performed a graphic chart analysis using deviations from the 49th Percentile as a comparisons index. We also performed a data exploration analysis, using dotplots, boxplots, and hypotheses testing at the 95% level of confidence. We could do this hypothesis testing since group percentile scores are normally distributed. We tested to see if there existed statistical evidence of duality. We asked ourselves if these testing distributions by race were indicative of some minor anomalies or if they were evidence of something much more serious. Our conclusion is as follows:

The statistical evidence shows that WPSS is a dual school system: one for Blacks, one for Whites.

When we combine the results of the enrollment distribution, the test scores and Transportation Model simulations, we conclude that the key issue facing WPSS is that it is a school system suffering from the vestiges of segregation. Using anecdotal and interview evidence of rank and file Black and White citizens and WPSS staff, together with the mathematical findings of this study, we feel that there is a strong case for the position that WPSS is not a system that has reverted to segregation; but instead that it is a system has never desegregated. The history of employment patterns, enrollment by race, and the performance of Black children versus White children over the years strengthens this argument considerably.

Remarks:

One of the aims of an effective desegregation program is to optimize the mix of the races in each grade in each school. This is the meaning of full integration. An operant view of full integration is for example, if GRADE YYY had 45% White children and 55% Black children, then each classroom in each school where GRADE YYY was housed would have 45% White children and 55% Black children. Some leeway is naturally given, since children are human beings not statistics.

When data yield such an obviously poor concentration of the races, as in this case, we can conclude that this occurrence is beyond the normal scope of natural leeway; and we suggest that the desegregation policy in place be reexamined for its lack of effectiveness.

A preliminary analysis of the enrollment patterns and opportunities determined that in order for the Wallop School System to be at full integration in 1990, it will be necessary to change the enrollment sites of 2580 Black children and 2520 White children for a total of 5100 children. This[5100] represents 28.23% of the test enrollment total of 18063 students as of November 5th, 1990. (See Appendix 1.) Recall that the 199 K4 and 458 Special Education students were excluded from this part of the study. Of course, this cannot be done this year; but something of this magnitude will have to be done in 1992-1993 when the Middle Schools Plan comes into effect. If the desegregation plan is not optimal in the beginning of the Middle Schools Plan, then it will remain suboptimal for many years to come. Historically when such a thing happens, Black children end up being victimized without any protection or avenue for redress.

For 1991-1992, the high schools can be integrated. Nothing is in the way of this, since the Middle Schools Plan does

not effect this issue. For our Transportation Model we have designed our strategy to address the integration of the high schools in September. The strategy can be used to integrate any grade for any collection of schools for that grade.

We have also discovered a lack of unanimity among Senior Staff with respect to this issue of duality. We include the Superintendent in this collection. In particular, there appear to be four distinct groups among Senior Staff:

- A. The Advocacy Group. This group welcomes confronting the duality issue as the prime concern of WPSS.
- B. The Camouflage Group. This group seeks to substitute at every instance, a different socio-economic explanation of the duality issue. It uses subjects such as gender or poverty to mask the duality.
- C. The Avoidance Group. This group seeks to remain neutral with respect to the duality issue. It will not move nor encourage anyone to move on the duality issue unless so directed by a clear political majority.

D. The Disempowerment/Denial Group. This group seeks to blame the poor performance of Black children on Black parents, who themselves are victims of the same system.

Since Senior Staff is directly responsible for managing middle management in WPSS, namely, the principals in the system; such a divergence in views and direction can only make the address to duality very difficult.

The School Board itself has been observed over the last two years, and we conclude that as a 'collective' not individual, person, it can be classified as belonging to the Avoidance Group. This is mainly because the Board has followed a policy of deliberate neglect with respect to the duality question.

We use the language of 'deliberate neglect' because the test data is so compelling. This cannot be the result of an accidental policy. It is possible to conclude that the School Board in the past chose not to look at this data. Or that it did , and chose not to do anything about it. We are not suggesting villainy; instead we are simply saying that for whatever reason, in the past, the School Board either chose not to look at this type of information, or if it did, it chose an inappropriate response.

Recommendation: We urge the School Board to make effective school desegregation its top priority, included therewith, a sensitivity program eliminating racial disparate treatment. We understand that the School System is entertaining an Effective Schools Approach Management tool. We suggest that whatever mechanism, the System employs; the key is focusing on the statistically significant client group in the schools. Blacks make up about 66% of the enrollees. If the schools are to be successful, then there has to be an admission that the System is failing Black children.

Analysis:

The 75% bulk method.

We asked ourselves, "where is the bulk of the students by race in each grade?" The issue was how to define bulk. We defined it as the collection of schools whose percentage of a race by grade best sums to seventy five percent of the racial population of that grade. Here best means that as a collection of percentages, this collection gets closer to seventy five percent better than any other collection in that grade, when the percentage of racial population in each school in that grade is arranged in ascending order. Let us illustrate this method with a hypothetical example:

Grade XXX has the following racial distribution:

<u>School</u> (Name)	<u>Race</u>	
	(Blk%)	(Wht%)
AA	15	17
BB	21	6
CC	19	18
DD	19	22
EE	12	19
FF	14	18
Total	100	100

How do we interpret any entry in the Race column? Take, for example, the 19 in the Blk% column across from School CC. This means that 19 percent of the total number of Black students enrolled in GradeXXX are attending School CC.

How do we arrive at the 75% bulk collection of schools representing the concentration of students of either race in GradeXXX? If we arrange the percentage entries in either column in ascending order, and derive the cumulative percentages, we'll spot the best collections.

Black Students By School:

School	:	EE	FF	AA	CC	DD	BB
Percentage:		12	14	15	19	19	21
Cum%	:	12	26	41	60	79	100
1-(Cum%)	:	--	88	74	59	40	21

White Students by School:

School	:	BB	AA	CC	FF	EE	DD
Percentage:		6	17	18	18	19	22
Cum%	:	6	23	41	59	78	100
1-(Cum%)	:	--	94	77	59	41	22

It is now straightforward to see the Black 75% bulk collection:

{AA, CC, DD, BB}.

Similarly, the White 75% bulk collection is:

{CC, FF, EE, DD}.

What we have done is taken the largest percentages whose sum best approximates the 75%.

We now ask ourselves, "do the races match up in their 75% bulk representation?" The answer here is that they do not. They match only in two schools, CC and DD. But in four other schools for this grade, they do not: AA, FF, EE AND BB.

How do we interpret this result? We say that in GradeXXX, using the 75% bulk criteria, Black and White students are similarly concentrated in two schools, but in four schools

they are not. Thus, for GradeXXX, Black students and White students are concentrated in different schools.

An effective desegregation program will yield a perfect match up in each grade. That is, the 75% bulk of both races will be in the same schools, and one will be able to conclude that for GradeYYY, Black and White students are similarly concentrated in all such schools.

The advantage of the 75% bulk method is that it allows for special programs such as Gifted and Talented. That is, since you are seeking where the bulk of your students are, and the bulk of your students are not affected by special programs (special programs such as Gifted and Talented normally make up about 7 to 9 percent of a school population, so even if a particular racial group made up all of the special program population, this would not affect the reliability and validity of the 75% bulk method), then the bulk of your students should be housed in the same schools. Note well that this percentage technique, as well as the 100% matching method, is only influenced by capacity problems if they exist. In Wallop, there are no capacity problems. We have enough classrooms for every grade.

We now give you the results of our analyses of the racial and ethnic data for the Wallop School System published November 5, 1990.

System wide there is no grade where Black and White students are similarly concentrated using the 75% bulk method. Furthermore, assuming proportionate future shifts in the population, the chances for a Black or White student of a 75% bulk group being housed in the same school as a student of the other race of a 75% bulk group is about 37 out of 100 or 37 %. This analysis excludes the K4 student population and Special Education students and students classified as Other Than Black Or White.

The 100% Matching Method.

This method reflects the complete student population by grade by race, and asks, "are the two races proportionately paired where they both reside?" We define 'proportionately paired' as the ratio of the percent of one race (whichever is lower) at a school of the total grade population of that race to the similar percent of the other race, being at least ninety percent. (90%). The idea is that both races should have percentages in a school that are very close to each other if the mixing of the races is being optimized.

Again let us use the data from GradeXXX. There we see the following ratios:

Ratio Of Lower To Higher Per School

School:

AA	.88235
BB	.28571
CC	.94737
DD	.86364
EE	.63158
FF	.77778

By this criteria, GradeXXX has only one out of six possible proportionate pairs, and we can conclude that a tendency to concentrate the races in the same schools is absent.

The value of this method is that it allows for the 7 to 9 percent of the student body that tends to be in special programs such as Gifted and Talented, without affecting the reliability and validity of the results. Also it respects the twenty (20) percent variance allowed in such matters by the U.S. Justice Department.

Again in a system with an effective school desegregation program, proportionate pairs are the norm.

We now give the results of our analysis of the racial and ethnic enrollment for the Wallop School System for data published November 5, 1990.

System wide there were only nine (9) out of a possible one hundred six (106) proportionate pairs in the public schools. This implies that a tendency to concentrate the races in the same schools is absent

By these results, the chances of either a Black or White child being in a proportionate pairing with children of the other race is about 85 out of a 1000 or 8 and 1/2 percent.(8.5%).

What this further means is that of the total number of schools where both races attend (all schools for all grades in this case), only nine school grade matchings out of a total of one hundred six, yielded an optimally desegregated setting. Comparing this to the results of the 75% bulk method, we see that of the seventy two possible grade matchings in these bulk sets, only twenty seven yielded effective desegregation. This twenty seven out of seventy two is not an improvement. On the contrary, it is a severer reprimand of the system, since the method is a much more generous method of desegregation. Don't forget, here we're are only accounting for 75% of the student body. Thus we

would naturally expect that all schools be matched. That is, seventy two out of seventy two

Objections:

Objection One: The 75% bulk method is based on an arbitrary percentage, 75%, so its results are arbitrary.

Response: By most educational statistical literature, the bulk of a student population, by measurable demographic characteristic, is located plus or minus two standard deviations from the population mean of that demographic characteristic. Using the Central Limit Theorem, this translates to the bulk of the population being contained in a 95% bubble under the Normal curve. Estimating this 95% bubble, without any knowledge or assumption of where the Wallop student population may lie, we can use a theorem from Statistics that enables one to say that at least 75% of the population is within two standard deviations from the mean of the population. This is without knowing what the population looks like, we can say that at least 75% of it lies within 2 standard deviations from the mean. Thus the 75% is not arbitrary, but instead a conservative estimate of the bulk of your student population which tends to be bell-shaped distributed for most educational statistics. What we

are measuring here is location related and significantly influenced by the transient nature of the Wallop population, thus an assumption that these location data are bell-shaped is quite risky. Hence, using the lower more conservative estimate of bulk is sound. Furthermore, the manner in which the sum to the best 75% is attained is free from the bias of the examiner to place convenient percentages where he or she may choose. We determine the 'best' 75% sum in the same way for each grade, without regard for the particular school, race or arrangement.

Objection Two: The 100% matching method is unreliable because it does not take into account school capacity. Thus, it is too severe in its analysis.

Response: If the Wallop School System had a capacity problem in a particular grade this would be a reasonable objection. Fortunately, Wallop does not have this problem. There are enough classrooms for each grade to optimize racial mixing. That is, there are enough classrooms for each grade and school so that the same percentage of Black and White students with respect to their total grade populations by race, could be assigned. Let us illustrate the simple mathematical formula that demonstrates this. Let this be GradeYYY, with 1500 Black and 450 White students.

Let y represent the classroom capacity of a particular school for GradeYYY. Now consider the following:

$$\frac{(1500/(1500+450)) * (y)}{1500} = \frac{(450/(1500+450)) * (y)}{450}$$

1500

450

The expression on the left is the percent of the Total Black Population in that grade that you will assign to a particular classroom times the capacity of that classroom. Similarly, the expression on the right for White students. The expressions are clearly equal which means that equal percentages of both races could be assigned to that classroom.

Let us illustrate with the data for Grade008 in Wallop. Here we see that the overall ratio of Black to White is 66 to 33. This means that 66 percent of the eighth grade seats in say, School A High School could be assigned to Black students, and 33 percent to White students, or 201 Black students to 101 White students. As a percentage of total racial population for that grade, these data translate to 21.3% White concentration to 21.1% Black concentration, or a ratio of 21.1/21.3 which equals .99117. Clearly a proportionate pair. And of course, this can be done system wide. Y here is the 302 enrollment figure for Grade008 published by the Board. Since there is no capacity problem, it is

safe to assume that the 302 represents capacity. We end up with

$$.66/201 = .33/101$$

our sought identity. Again, it is possible to have the same percentage of Whites and Blacks in every classroom in every school in the System.

Objection Three: These concentrations were merely accidental. The analysis implies that there was a deliberate attempt to avoid desegregation.

Response: The analysis does not draw any conclusion with respect to a deliberate attempt to thwart desegregation. But it does conclude that such a lack of racial concentrations reflects a desegregation plan that is not working. The ideal is to mix the races in an optimal way, yet respect special programs such as Gifted and Talented. In both methodologies, the results were the same: the majority of the races were not concentrated in the same schools. The pattern of lack of matched pairs using either method, suggest that randomness is at not play here; but instead a poor design is continuing to perpetuate a poor distribution of the races. This design can very well be inadvertent, nevertheless, it is a poor design.

Objection Four: The 75% bulk method hides too much information. For example, it can be the case that while a school grade racial percentage data is incongruous for the bulk method, a mismatch can actually end up being a proportionate pair.

Response: This objection misses the point of the 75% bulk method. Namely, to create a set where the bulk of either race is housed. You need to compare these two sets, not augment the analysis with hyperbole. Nevertheless, to assuage the objection, we have compensated for its occurrence in applying the bulk method. We have examined all those mismatches or disconcentrates and applied the 10% allowance used in the 100% matching method. If the 10% criteria produced a match, then we discounted that disconcentrate from the 75% bulk collection of disconcentrates for that particular grade. The results of this compensation was that one and only one disconcentrate was discounted from one grade. The 37% probability of joint concentrations still stands.

Objection Five: The 10% criteria in the 100% matching method is purely arbitrary. A higher percentage criteria for proportionate pairs would produce a higher count of matched pairs.

Response: The only way to presume that optimal desegregation is taking place is to assume that the ideal concentrations in a particular school for a particular grade be identical. Since the Special Education children are excluded from the study, then we are dealing with a student population that will include Gifted and Talented as a portion, but the major part of the student body is Normally described. Gifted and Talented students usually make up no more than 7 to 9 percent of the total school age population. Thus, we would expect under an optimal desegregation plan that even if this higher end group were only of one racial group, then the remaining 90% that is Normally talented would be grouped with the other 90% that is Normally talented. No matter how one spreads the remaining 10%, we expect a matching of 90% in each grade. To increase percent criteria(greater than 10% either way), we would need criteria that would reflect characteristics outside the Normal range. Examination of the Wallop system produces no such criteria. You have Gifted and Talented Programs, but that's it. The 10% more than compensates for the Gifted and Talented Group, hence we are covering the student population in an unambiguous and reliable way. Furthermore, this 10% leeway, respects the 20% variance implied by the School Board, in that the 10% can be taken either way.

Objection Six: The mix of both the 75% bulk method and the 100% matching method yields too much ambiguity. The arguments seem to vacillate between both methods, never settling on either context. By such amorphous interchange, unnecessary confusion results and policy determination and implementation are made quite difficult.

Response: On the contrary, the mix is presented so that reasonable flexibility in policy determination can be protected. The 75% bulk method is a gross conservative method that yields a low end goal for racial balance. Approximately, 75% of both races should be in the same schools. The 100% matching method is the high end stringent goal: at least 90% of both races by grade should be in the same schools. The flexibility is there to react with the costs of attaining school desegregation through equity busing. {we need to go over this so that the use of the 75% method is made clear. Its purpose is is to see where most of the kids are regardless of assignment method. the 100% method is about speaking of where they should be}.

SUMMARY OF ANALYSIS AND DISCUSSION

In what follows, namely the Summary of Analyses of both methods by school count and by proportion of race enrolled,

we will see clearly that the Wallop School System is poorly desegregated. We present the proportion of race enrolled analysis to protect against the objection that while matters appear poorly by school count, this count data is actually hiding a much brighter picture. It is not. One can conclude by what is to follow that the Wallop Public School System is effectively a dual school system with the races, Black and White, while attending the same schools, concentrated in different schools.

SUMMARY OF ANALYSES

75% Bulk Method By Enrollment Proportion

<u>Grade</u>	<u>Fully Integrated %</u>	<u>Nonintegrated %</u>
OKE	50.57	49.43
001	46.23	53.77
002	36.96	62.04
003	33.14	66.86
004	52.87	47.13
005	54.70	45.30
006	74.78	25.22
007	54.36	45.64
008	57.84	42.16
009	46.51	53.49
010	24.63	75.37
011	23.82	76.18
012	27.38	72.62
<u>Systemwide</u>	45.30	54.70

How to read the table: take the 74.78 entry across from Grade006, for example. This means that 74.78% of the bulk of Sixth Graders are attending fully integrated schools, while 25.22% are not. Remember! This is 74.78% of 75%, thus about half of the Six Graders are in poorly desegregated schools.

100% Matching Method By Enrollment Proportion

<u>Grade</u>	<u>Fully Integrated %</u>	<u>Nonintegrated %</u>
OKE	3.66	96.44
001	7.57	92.43
002	8.80	91.20
003	3.03	96.97
004	0.00	100.00
005	0.00	100.00
006	22.57	77.43
007	45.37	54.63
008	0.00	100.00
009	0.00	100.00
010	0.00	100.00
011	14.04	85.96
012	11.88	88.12
<u>Systemwide</u>	9.25	90.75

How to read the table data: take the 8.80 entry across from Grade002, for example. This means that 8.8% of the Second Graders are attending fully integrated schools, while 91.2% of the Second Graders are not.

75% Bulk Method By School Count

<u>Grade</u>	<u>Fully Integrated #</u>	<u>Nonintegrated #</u>
OKE	2	4
001	2	5
002	3	5
003	2	6
004	4	4
005	2	4
006	3	2
007	2	2
008	2	2
009	2	2
010	1	3
011	1	3
012	1	3
<u>System wide</u>	27	45
<u>System wide%</u>	37.5	62.5

How to read the tables: the interpretation is similar to the enrollment analysis. Here, we see the number or count of schools in either category, fully integrated or disintegrated. The 0 in Grade004 below, means that there were no schools where the fourth graders were concentrated in a fully integrated setting.

100% Matching Method By School Count

<u>Grade</u>	<u>Fully Integrated #</u>	<u>Nonintegrated #</u>
0KE	1	10
001	1	11
002	1	11
003	1	11
004	0	12
005	0	9
006	1	7
007	2	4
008	0	4
009	0	5
010	0	5
011	1	4
012	1	4
<u>Systemwide#</u>	9	97
<u>Systemwide%</u>	8.49	91.51

WALLOP PUBLIC SCHOOLS
 PRELIMINARY ANALYSIS OF SELECTED 1990 STANDARD TEST SCORES
 BY SCHOOL, BY RACE, BY TOTAL

GRADE 4

Test

	Reading															
School	Comp					Math				Language				Total		
	BGE			WGE		BGE			WGE		BGE		WGE			
	B%	W%	T%			B%	W%	T%			B%	W%	T%			
Total	na	na	36			na	na	42			na	na	48	na	na	41
		3-8	4-9	4-1	5-0						4-2	5-3	4-0	5-1		
School B A.	27	58	38	30	62	43					37	65	48	29	64	42
		3-7	5-6	4-1	5-3						4-5	6-2	4-1	5-6		
School B E.	27	74	43	32	72	38					43	84	61	32	78	53
		3-8	4-2	4-1	4-3						4-3	4-0	4-0	4-2		
School 3.	27	37	28	31	39	31					39	30	38	31	35	32
		3-7	4-3	4-1	4-4						4-6	4-5	4-1	4-4		
School 3.	27	42	26	30	43	31					46	44	44	32	43	31

	4-0	4-8	4-5	4-9	4-5	5-2	4-3	5-0				
School 5	33	54	37	44	61	48	45	63	48	38	61	43
	4-0	4-6	4-0	4-8	4-4	5-3	4-1	4-9				
School 6	31	48	38	29	57	41	41	64	51	32	59	43
	4-0	4-9	4-3	5-1	4-9	5-9	4-3	5-3				
School 7	31	58	46	39	68	56	54	78	66	39	69	56
	4-0	3-6	4-1	3-9	4-3	3-9	4-1	3-9				
School 12	32	23	31	30	25	30	39	28	37	34	28	33
	4-0	4-8	4-3	5-2	4-7	5-6	4-2	5-2				
School 10	31	53	41	39	69	53	49	72	60	35	67	48
	3-8	4-3	4-1	4-2	4-2	4-2	4-0	4-3				
School 8	28	40	31	30	34	31	35	36	35	31	39	34
	3-6	4-3	4-0	4-5	4-0	4-7	3-8	4-5				
School 9	22	42	27	27	43	30	31	49	35	25	46	29
	3-8	4-4	4-2	4-5	4-1	4-9	4-0	4-7				
School 14	28	43	33	33	44	38	35	55	41	30	51	36

How to read an entry in this table: Take the first column across from School 12. 4-0 means that School 12 Black fourth graders who took this test scored the same as all fourth grade zero month students nationally. The 32 means that this School 12 Black group scored higher than the bottom 32 percent nationally, and that 68 percent nationally scored higher than the School 12 Black group.

Test

GRADE 11

Total	na na 44	na na 43	na na 57	na na 49
School B HS	35 64 55	36 63 56	44 72 65	37 68 58
School A HS	28 49 35	27 45 33	43 63 52	32 53 39
School E HS	31 65 43	31 61 41	45 70 56	36 65 47
School C HS	46 68 47	41 71 42	59 73 60	47 78 49
School D HS	27 63 33	29 66 36	41 68 47	31 61 37

How to read an entry in this table: Take the first column across from School A. 8-1 means that School A Black eighth graders who took this test scored the same as all eighth grade first month students nationally. The 42 means that this School A Black group scored higher than the bottom 42 percent nationally, and that 58 percent nationally scored higher than the School A Black group.

CAUTION The ideal average grade for the eighth grade is 8-7, not 8-0. This is because this test was taken during the eighth grade, seventh month. For the fourth grade, the ideal is 4-7; and for the eleventh grade, the ideal should be 49 to 50 percent. This ideal grade means that a student scored in an average way.

The Transportation Model

- Purpose:** To present a model that furthers school desegregation at a minimal direct transportation cost.
- Context:** This model has been produced within the 20% school enrollment variance suggested by the board of WPSS. In addition, other criteria are used to simulate other models to increase planning flexibility.
- Logic:** We seek to assign students by grade by race to schools so that:
- (a) Average travel distance by student is minimized
 - (b) All students are assigned
 - (c) School grade capacity is not exceeded

- (d) At least 17%, but not more than 57% of the enrollment in any grade in any school is White
- (e) At least 25%, but not more than 51% of enrollment in any grade in any school is White
- (f) At least 30% of enrollment in any grade in any school is White, with a 57% maximum understood
- (g) White students will be assigned in the same proportion as they exist in their originating census tract.

What follows are simulations for the ninth grade based on 1990 census tract data.

Derivation of full integration factors.

The formula is as follows:

$$\begin{aligned}
 &(\text{Full Integration Factor}(I)) \times (\text{Ideal White/Total}(R)) \\
 &= \\
 &(\text{Actual White/Total Grade By School Ratio}(A)) \\
 &\text{OR} \\
 &I \times R = A.
 \end{aligned}$$

Now the average ideal White ratio in the ninth, tenth, eleventh and twelfth grade is .37 as of the Census Tract data supplied by the office of Business Affairs. The .20 variance policy the Board suggests translates to a minimum White percentage by grade by school of .17,

$$(.37 - .20) = .17.$$

Clearly, the maximum White percentage will be .57. This is equivalent to a degree of full integration of .4595.

$$I \times R = A$$

$$I \times .37 = .17$$

OR

$$I = .17/.37 = .4595.$$

Thus the School Board's 20% policy fixes full integration at less than half of the possible degree. This compares in a coincident way to the current situation of Systemwide 75% Bulk Method integration of .4530. In other word, the Board policy does not improve the current situation. Nevertheless, we ran the model with the board criteria and attained the following results:

<u>School</u>	<u>Minimum # Whites</u>	<u>White%</u>
School A	106	39.11
School C	39	17.33
School D	110	40.74
School B	201	58.26
School E	77	35.81

This would result in no bussing from School B, and some bussing into School B.

Experience has shown that such a distribution of enrollment leads to resegregation almost immediately, so that a better degree of full integration is suggested. Some Black rank and file citizens have suggested to Dr. Edison a 3 to 1 minimum, grade, school ratio. This actually translates to a .25 minimum White ratio, with a degree of full integration of .75. Clearly, it is a superior plan.

We have run the model with this .25 White minimum, and we have put as a cap, a .51 maximum White ratio. The results are as follows:

<u>School</u>	<u>Minimum # Whites</u>	<u>White%</u>
School A	100	36.90
School C	56	25.00
School D	68	25.00
School B	176	51.00
School E	77	35.80

This would result in no bussing from School B, and some bussing into School B.

While this is a significant improvement from the board policy, it still creates distortions that need to be avoided, namely, an artificial White majority is being maintained in School B.

.

To dispel this and any mixed message that may result, we suggest a policy of 30% White minimum at any grade at any School. This translates to a degree of full integration of .8108. Not ideal, but in the right direction. The results of a run with this minimum would be:

<u>School</u>	<u>White%</u>
School A	30.03
School C	30.00
School D	30.00
School B	55.00
School E	30.02

This would result in some minisicule bussing from School B, and some bussing into School B.

SUMMARY OF RESULTS

<u>School</u>	<u>20%Plan</u>	<u>75%Plan</u>	<u>30%Plan</u>
School A	.3911	.3690	.3030
School C	.1733	.2500	.3000
School D	.4074	.2500	.3000
School B	.5826	.5100	.5500
School E	.3581	.3500	.3020
Avg. Miles/Student	2.24	2.29	2.29

PLANS BY CENSUS TRACT BY SCHOOLS

20% Plan

School A: 119, 120, 121, 122, 123, 124, 125, 126

School C: 114, 115, 116, 117, 118, 126

School D: 102, 103, 104, 106, 107, 109, 110, 111, 112, 116,
117, 127.1, 127.2

School B: 105, 111, 113, 116, 130, 131.1, 131.2

School E: 127.1, 128, 129

75% Plan

School A: 119, 120, 121, 122, 123, 124, 125, 126, 127.2

School C: 114, 115, 116, 118, 126

School D: 102, 103, 104, 106, 107, 109, 110, 111, 112, 116,
117, 125, 127.1, 127.2, 130

School B: 105, 111, 113, 130, 131.1, 131.2

School E: 127.1, 128, 129

30% Plan

School A: 119, 120, 121, 123, 124, 125, 126, 127.2

School C: 114, 115, 116, 117, 118, 122, 126

School D: 102, 103, 104, 106, 107, 109, 110, 111, 112, 118,
125, 127.1, 127.2

School B: 105, 110, 113, 130, 131.1, 131.2

School E: 127.1, 128, 129

Appendix Three: The Double Loop Exercise

DOUBLE LOOP LEARNING EXERCISE

MARCH 21ST, 1991, ILT, WALLOP PUBLIC SCHOOLS

This is an exercise designed to determine the potential for double loop learning among the Superintendent's staff. We seek to discover the type of learning model that currently exists among the staff. With this information, we can better shape to your needs the sociotechnical intervention in which we are involved with Old Dominion University.

YOUR RESPONSES ON THE ENCLOSED QUESTIONNAIRES ARE STRICTLY CONFIDENTIAL. NO ONE WILL SEE THESE DATA EXCEPT ME. IF THE GROUP VOTES UNANIMOUSLY TO SHARE THESE DATA WITH ANY OTHER BODY OR GROUP THEN THAT WILL HAPPEN. YOUR NAMES ON THESE QUESTIONNAIRES WILL BE CODED AND ONLY I WILL HAVE THE CODE.

Instructions

1. Please Answer Question One now. You have eight minutes.

{I will collect your responses, have them xeroxed and
the xerox copies will be returned to you asap}

2. Please Answer Question Two at home or any place you
choose except here today.

DO NOT LOOK AT QUESTION THREE UNTIL YOU HAVE COMPLETED
QUESTION TWO

3. Please Answer Question Three at home or any place you
choose except here today.
4. Please FAX to me or give to Mrs. Long or Mrs. Short your
completed questionnaires in the enclosed envelopes by
5:00 pm tomorrow.

My FAX Number:

804-683-4898

My Phone Numbers:

804-683-4558, 4161 (O)

804-531-0123 (H) Identification # _____

QUESTION ONE: What has the information about current enrollment patterns and Iowa test results for March 1990, conveyed to you?

QUESTION TWO: What has your answer to Question One conveyed to you about your role in the Wallop Public School System?

QUESTION THREE: Looking at your answer to Question Two, would you now modify your answer to Question One? If yes, please do so, giving your reasons for modifying Question One. If no, please give your reasons for not modifying your answer to Question One.

AUTOBIOGRAPHICAL STATEMENT

Ely Alfred Dorsey, Jr., was born in New York City in 1943. He attended the City College of New York, and received a B.A. in Economics in 1970. He has attended City University, Howard University and Old Dominion University. He has worked as an applied mathematician and mathematical economist since 1966. He has taught on both the graduate and undergraduate level in several universities in the United States. He has received various fellowships and assistantships while pursuing the doctoral degree. He is a member of IPSA, TMS and the MAA. He has a civil rights activist history. He has three children, Ely, Anthony and Tashamee.