A preferred vision for administering elementary schools: a reflective essay

John Adam Barker Jr.
University of Northern Iowa

Copyright ©1997 John Adam Barker Jr.
Follow this and additional works at: https://scholarworks.uni.edu/grp

Part of the Educational Leadership Commons, and the Elementary and Middle and Secondary Education Administration Commons

Let us know how access to this document benefits you

Recommended Citation
https://scholarworks.uni.edu/grp/305

This Open Access Graduate Research Paper is brought to you for free and open access by the Student Work at UNI ScholarWorks. It has been accepted for inclusion in Graduate Research Papers by an authorized administrator of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.
Abstract
People have different goals, dreams and aspirations in life. Whereas some aspire to become doctors, lawyers and accountants, others long to serve as engineers, managers and politicians. One of my greatest missions in life is to serve as a school principal. The purpose of this paper is to share my beliefs, values, and vision on being a principal. Beginning with my experiences, it serves to highlight my vision, values, ethics, leadership style and technological plans I intend to implement.
A PREFERRED VISION FOR ADMINISTERING ELEMENTARY SCHOOLS:

A REFLECTIVE ESSAY

A Research Paper

Presented to

The Department of Educational Administration and Counseling

University of Northern Iowa

In Partial Fulfillment of the Requirements for the Degree

Master of Arts in Education

by

John Adam Barker, Jr.

May 1997
This Research Paper by: John Adam Barker, Jr.

Entitled: A PREFERRED VISION FOR ADMINISTERING ELEMENTARY SCHOOLS: A REFLECTIVE ESSAY

has been approved as meeting the research paper requirements for the Degree of Master of Arts in Education.

4/3/1997
Date Approved
Adviser/Director of Research Paper

Dave Else

4/7/97
Date Approved
Second Reader of Research Paper

Dale R. Jackson

4/7/97
Date Received
Head, Department of Educational Administration and Counseling

Michael D. Waggoner
People have different goals, dreams and aspirations in life. Whereas some aspire to become doctors, lawyers and accountants, others long to serve as engineers, managers and politicians. One of my greatest missions in life is to serve as a school principal.

The purpose of this paper is to share my beliefs, values, and vision on being a principal. Beginning with my experiences, it serves to highlight my vision, values, ethics, leadership style and technological plans I intend to implement.

Experiences

My ambition to serve as a principal all started during my school years at George Washington Carver Elementary School, Chicago (1967-1976). In 3rd and 4th grades, I had an excellent teacher by the name of Mrs. Geraldine Thompson. She was a very thoughtful and caring tutor who insisted that we learn. She really inspired me to become a teacher through her dedication and diligence to education. I looked up to her as a heroine. This teacher worked hard and manifested a unique love for teaching.
As I watched Mrs. Thompson for two years with great admiration, I noticed that she always found something positive to compliment us on at the end of the day. I vividly remember how gentle and considerate Mrs. Thompson reacted to some of the stubborn students who occasionally disrupted classes. Rather than reprimand them, she expressed concern and advised them with compassion to reform their ways. Indeed, she even praised them at the end of the day for the least constructive achievements. I learned from her excellent example that it took a lot of patience and caring to be a successful elementary school teacher. That lesson has guided me throughout my professional career.

By the time I completed eighth grade in 1976, I had met some outstanding teachers, who influenced my career goals. They all encouraged me to become a teacher by telling me that I possessed some of the characteristics of good teachers. During my high school years at George Washington Carver High, I did my utmost to be the teacher’s assistant.

In high school, I came in contact with Terence Jones, a teacher who was studying to become a principal, which left a lasting impression upon me. As I went through high school,
Mr. Jones became a mentor, who counseled me and helped to shape my future aspirations. When I expressed to him I wanted to be a teacher, he advised me to seek a higher goal. He asked if I ever thought of being a principal. I responded, "I do not know what principal's do." He said, "You have to develop an ambition to work with people, settle disputes between students and staff, and above all serve as an effective leader. You have to be able to communicate effectively with staff, students, parents, and the community." (Personal Communication, 19.)

I pondered his advice for a long time and considered becoming a principal. However, there were still unanswered questions about the teaching profession. I still wondered how I could develop the qualities of a good principal? My advisor impressed upon me to attend college and study elementary education.

On graduation I enrolled at Tarkio College in Missouri to study elementary education. My ambition was to be an excellent teacher. Consequently, I concentrated on acquiring the knowledge, tools, and skills which could make me an outstanding teacher like Mr. Jones and Mrs. Thompson.
suspended the dream of becoming a principal for awhile as I concentrated on becoming an elementary educator.

After graduation from Tarkio College in 1986, I was offered a teaching job at McKinstry Elementary School, Waterloo, Iowa, where I currently teach. Over the last decade, I have taught classes, served as disciplinarian, acting principal, and chairman of school committees. After my first year, the principal, Robert Diller, called me into his office. He congratulated me on a successful year and also asked me if I had considered becoming an administrator. Mr. Diller informed me he had watched me over the year and was impressed with my professional demeanor.

The students at McKinstry posed challenges, and discipline was a problem. However, I developed creative strategies in addressing the students by listening to the students with respect, and by working with the students in my room and throughout the building.

Mr. Diller also expressed that I had a talent for dealing with students and parents. He said I was always fair and consistent in my work. The staff, students, and parents commended my unique disciplinary style.
Following my exceptional performance, Principal Diller asked me to serve as his assistant for the 1987-88 school year. This invitation came as a shock because I had never anticipated it. This event prompted me to really consider what it would take to be a principal. When the current principal, Diana Allen, replaced Mr. Diller in 1992, I had already served as a principal designee. At present, I serve as the administrative assistant.

Now more than ever before in my career, I am convinced that I have acquired the experience, knowledge, and expertise for the principalship. Having taught, observed principals, and acted in that capacity, there is not a shadow of doubt in my mind that I can succeed as a principal. The crucial question however remains. "What are the qualities of an effective school principal?" Based on my elementary school and college experiences, training, graduate work, and observation, I now recognize some qualities of effective principals.

Vision

The principal's vision must be inspiring and important. If it is mundane and unremarkable, it will not attract either internal or external constituencies. But if it has power, it can
activate enormous energy and resources. Second, the vision must be credible. Outsiders must believe the organization can implement its vision. Insiders also must think it can work (Williams, 1994).

The vision must be communicated effectively. To do this you must share it with your staff, students, parents, and community. This vision must be part of the school's daily routine. It should be in the school newsletter, displayed in the hall, be part of the Parent Teacher Organization (P.T.O.), and understood by the students. The principal should incorporate the vision in all aspects of the school's programs (Lassey, 1991). But, the creation of a vision and mission is far more valuable--but much more difficult--than the reading of the end product. Thus, a group effort is desirable and advantageous so everyone is of one accord and a shared vision is agreed upon.

There is no fixed rule for preparing such statements. It could easily begin with a short and rough draft from out of the head, and the heart of a leader. The ultimate quality of the effort, however, is highly dependent on: (a) tangible awareness of the future marketplace and likely competitors and activities; and (b) realistic assessment of internal capabilities (Williams,
1994). According to Joekel, Wendel and Itoke (1994), schools, like many nonprofit organizations will have to adopt their visions to fit better with their emerging economics and related environments.

The principal’s vision must encompass his/her values and ethics. My vision will guide my efforts in improving teaching techniques and student achievement. My vision will have short-term and long-term goals. It will dictate my professional behavior toward staff, students, and parents. My vision will always focus on striving for excellence and hard work.

To work toward this vision, I must allow for professional growth, shared decision making, and responsibility. The vision can be welcomed by all if the principal is honest and trustworthy. As Bailey (1988) relates, the vision is only as effective as its leader.

Effective principals have a vision for their schools. I have a vision to uplift the standard of education wherever I serve. Where there is no vision, there is no progress. It becomes like a series of ramps on a highway, all going in different directions without any clear path. A vision must have a purpose (Rice & Schneider, 1994).
My vision of the principalship is that of a leader who moves the institution forward in all directions. I believe a principal should be a team leader and member. (S)he should lead and guide the staff, parents, and the community.

**Communication**

The principal, must in collaboration with his constituents, articulate a clear vision for the school and set out to implement the vision. Effective principals are good communicators. Consequently, I must develop effective verbal and writing skills.

This effort requires that I gather accurate information and share it with my colleagues. I also need to be frank and sincere with staff, students, parents, and the community. I need to let them know what is occurring at all times. I need to listen to them and others with whom I work. I truly believe that people are experts in various fields, and the effective principal listens to and uses their expertise for the schools overall success. Yes, I know I have to make decisions, but the majority of those decisions need to come from the staff. I know this from my experience as a classroom teacher.
Viscosity

The principal must be active and visible in the school. I therefore believe that the students, staff and other constituents should relate to me with ease whenever the need arises. I do not like the idea of students only seeing the principal when they are sent to the office for disciplinary reasons (Joekel, Wendel, & Hoke, 1994).

An effective principal is not only visible in the school, (s)he should also be visible in the community. (S)he should inform the community of the activities going on in the school and invite the community into the school (Clark, 1995).

Outside agencies should be well informed of students' needs.

It is my belief that the community and outside agencies such as governmental departments, churches and families should work in partnership to educate students. I agree with the African-American educator J. Kunjufu (1989) who stated, “It takes a whole village to raise a child.” Reflecting on my experiences, I realize it takes the whole community to teach the child. It does not just take the principal, teacher, parents, or counselor. It takes all of these people, with the principal being in the leadership position to guide and direct students to
be successful. Therefore, the principal needs to collaborate with the community.

The principal should also network with other colleagues to generate new ideas and use available technology. (S)he should further participate in conferences and workshops to grow as a leader.

Staff Development

The principal should listen to staff requests and help in their development. (S)he works with the staff and seeks out appropriate programs to meet the needs of the students. (S)he works with the staff on schedules and the school budget. (S)he also tries to adjust classrooms to fit school and student needs (Siehl & Struder, 1994).

A principal must work very closely with the superintendent. (S)he shares ideas and beliefs with the district’s superintendent and other colleagues. (S)he is very loyal to the district as well as the school.

A principal uplifts and promotes the school’s spirit by attending and supporting functions. The principal and staff should construct a school pledge and school song. (S)he
encourages the staff to participate in after school functions (West, 1994). An effective principal works with staff and students on disciplinary issues, policies, and procedures.

In my estimation it takes all these qualities and more to be an effective principal. It is a difficult task moving a school towards a common vision and direction, however, a good principal strives at attaining that objective. It will take a lot to get the staff to buy into any vision, however, having input into the decision-making process and in the daily operation of the school helps. The staff feels empowered to make decisions. Collaboration between principal and staff on decision-making ensures harmony in the school (Clark, 1995).

In summation, as an African-American male striving to be an administrator, I have a lot to offer in school leadership. The knowledge that I have received from the courses and instructors at the University of Northern Iowa (UNI) will be beneficial in the future. My studies in elementary education administration, leadership and management will definitely enhance my performance as a principal.

As I completed the required education administration courses, my answers became clear. Some of my colleagues
believed that as a black male I was guaranteed a job. Let me categorically state that I only want to be hired if I am qualified. When I say qualified, I mean I should be hired because of my skills and expertise -- not because of the color of my skin and/or gender. As African-Americans we have demonstrated competence in a number of areas. We hold high positions in every level of education. We have excelled in a progressive world. We have taken on the attitude of, “If we believe it, we can achieve it” (Kunjufu, 1989, p. 94)

As I write this reflective paper, it is important that the reader understands that these are the views of an African-American male striving to be an effective administrator. The University of Northern Iowa has helped me to fulfill this dream.

Values and Ethics

Webster's Dictionary defines values as the lasting genuine merit, resting on deeper intrinsic and enduring qualities. Ethics is the discipline dealing with what is good and bad, right or wrong, or just or unjust.
It was not considered essential to educate poor children or black children, and the availability of jobs on farms or in factories made a high dropout rate acceptable in the early 1930's (Morefield, 1994). This was unfair because everyone has a right to an education.

When I first came to UNI I felt confused and alone. I felt alone because I did not know any of the other students. I was new to the area, and I had a different background. I had an idea of what a principal does, however I still had questions which needed answers. For example, "What will be expected of me?" "How will I communicate and model my vision, beliefs, and expectations?" "How will I deal with the day to day issues put upon me?"

I realize the task of an educational administrator is not easy and there are a number of things that affects one's success in this field. For example, a principal can only succeed if (s)he enjoys staff, community, and administrative support. When I look back on the information gathered from the literature, instructors, personal experiences, colleagues, and students, I feel these things assisted me in forming my vision for the future in the administrative field.
The issue of denying people of color opportunities is a concern of mine. When I was in high school, the textbooks only talked about slavery and civil rights. There was never a discussion about blacks before slavery. It was as if there was no life for blacks before slavery. If people were given correct information initially, we would not be in the situation we are in today (Carson, 1994). I agree with this statement. I believe that if we do not put forth the time and energy to correct the situation, our society will suffer tremendously. We must work with parents, teachers, administrators, and community representatives to insure we are doing right by our children and treating them the same (Fender, 1995).

I believe effective principals should be honest in what they do. They need to be sincere in their feelings and expectations. They must be consistent with what they do. By doing and modeling these things they establish their credibility. Effective leaders establish credibility among those they lead by being competent and inspiring (Cruz, 1995).

The staff and the principal’s consistency within the student assignment load of one individual, or within the team of people responsible for the task, is always an issue open to
discussion and criticism. Administrators will often find themselves torn between the philosophy of the student as an individual (with unique needs, understanding, and behaviors) or the fact that in the minds of students, staff, and parents all students should be treated exactly the same regardless of the circumstances involved (Heller, 1996).

Effective principals extend and improve their skills through advanced degrees and involvement in professional associations so that they can network with other competent professionals (Clark, 1995).

Another value of an effective principal is having integrity in what they say and do. Such principals adhere to certain principles in their lives. These principles guide and guard their words, actions, and decisions, even during times of adversity (Cruz, 1995). The effective principal is always an advocate for students. (S)He is always a good role model. The principal's credibility is always very important and should never be jeopardized.
Leadership Styles

Leadership means to lead, guide or direct. There are several leadership styles, however the two dominant ones are the democratic and dictatorial leadership patterns.

The first type of leadership style is the dictatorship, which was very popular in our early educational system (Macduff, 1994). In organizations the leaders were the bosses, and whatever rule or law they enacted or decreed was not questioned. Most hierarchical organizations, including some educational institutions, operate as bureaucracies. The sociologist Max Weber (1975), enumerated 10 characteristics of hierarchical organizations. Leaders function freely subject to authority. They also respect: a) office hierarchy; b) a clearly defined sphere of competence; c) selection of candidates based on technical qualification.

In addition, such leaders earn fixed salaries and incumbents treat their offices as the primary occupation. This constitutes a career for most leaders, and they lack ownership of the organizations. Such leaders are also subject to strict and systematic discipline while in office (Weber, 1975). This style of leadership lingered around for a very long time and still
exists today. It was effective then, but is not considered very favorable in this day and age.

The very nature of socioeconomic technological changes demand close attention to new leadership approaches if we are to deal effectively with changed circumstances. Probably the greatest current gap in knowledge revolves around how to adapt social institutions at the local area, state and national levels, and to the emerging conditions of the future. Leaders must be developed who are capable of understanding these conditions, creating the institutions to meet new opportunities, and solving the multiplicity of problems. There is no clear outline of the specific knowledge and skills required for these tasks. (Lassey, 1971, p. 10)

Another popular leadership style is the democratic approach. The leader in this style gets input from staff, students, and other significant parties involved. This leader knows his/her job is to build excitement and consensus through involvement with a confident and committed work force of volunteers and employees.
This leader must be a cheerleader, and adult educator/teacher. This is the leadership style of the 1990s and it promises to thrive into the twenty-first century. The leader of the 1990’s initiates change, builds mutual respect with staff, and is a courageous risk taker.

These leadership requirements apply in governments, businesses, and non-profit organizations. Democratic leaders should initiate and seek out collaborative efforts rather than wait for governments and other donors to set the terms. This leader has a supportive organizational environment and recognizes and supports individuals as key members of the team (Moore, 1993).

There are five qualities that distinguish this democratic style: honor, empathy, reliability, congruity, and courage (Macduff, 1994). Arguably, the democratic principal gets more out of the staff because (s)he has these qualities. This style of leadership is very good for staff morale. It uses staff ideas and talents. Moreover, it involves everyone who has a stake in the vision (Siehl & Studer, 1994).

Shared leadership, in my opinion, is the most effective leadership style. Stephen Covey (1991) contends that it
provides a principle-centered learning environment. All stakeholders are identified and they share equal responsibility for providing the best learning environment for children's growth and empowerment (Covey, 1991). For instance, the educational family consists of the central administration office, the school board, the building level administrators, parents, and children. Each of these stakeholders has an individual set of responsibilities that donates to the learning environment. They all have certain responsibilities. Each one has ownership in providing resources and seeing that those resources stay at a high level. Parents within the private community and business leaders within this public community also have a vested interest in the learning environment (1991).

I envision implementing the democratic leadership style as principal. In order for this style to be effective, the stakeholders must be heard. They must be able to express their beliefs and opinions. The implementation of the principle-centered learning environment is a long process requiring coaching, supportive groups, and renewal programs. The time and energy must be given if rewards are to be realized.
The democratic leadership style can be implemented at the central office. This will require workshops with staff members, who are then given the time to coach peers. Communication is essential. Honesty and integrity are "key players".

Empowerment takes an abundant mentality-- an attitude that there is plenty for everybody, and more to spare, and the more you share, the more you receive (Covey, 1991). People who are threatened by the successes of others, see everyone as competitors.

Technology Plan

Humanity now lives in a technological era. Indeed, technology is ubiquitous, and school principals must come to grips with that reality. Throughout the United States and indeed the entire globe, humans communicate through satellites, faxes, telephones, radios, televisions, newspapers etc. Consequently an effective principal today must not only be knowledgeable but must also take advantage of the existing technologies in his/her administration (West, 1994).
As principal, my first task is to acquaint myself with existing and available technologies in the school and community which can serve the institution. Consequently, the principal should make an inventory of available technologies and their potential uses. In planning technology, it is important to think about the future (West, 1994). Yesterday’s technology, or even today’s, will not meet the growing needs of students, faculty, and staff. Planning for tomorrow’s technology is not a simple matter of hardware and software. It is a matter of planning for access.

Technology should give students, faculty, and staff access to all the information and resources they may need when they need it (West, 1994). Technology is a tool in the increasingly intricate network of communication and information needed for inquiring students. Administrators need to know how to design district, school, and classroom programs involving educational technology, and how to secure and allocate needed resources (Bailey & Lumley, 1995).

Anderson (1995) believes if students fail to appreciate a bona fide reason for using technology, they can rebel over
using some of the new toys the teacher finds fascinating. In order to successfully incorporate technology into courses, it must enhance the curriculum. This is achieved by finding the right "fit" of curriculum and technology.

A learning culture should be instilled and mothered to develop meaningful and relevant connections, initiate group and individual learning through cooperation, and help students produce a variety of outcomes as information is made available with continuous feedback (Holzmueller, 1996).

Some teachers who want to acquire technological skills need time, accessibility, and on-site support. In addressing such problems it is important to develop a campus technology plan that allows time for teachers to explore and learn to use these technologies. The staff must be informed that even though they might not become experts, they can use the technologies instructionally (Guhlin, 1996).

Technology cannot be successful unless schools are changed to receive technology. Change in instructional delivery systems is both the cause and effect of technology (Sutton, 1996). The first step an administrator must take is to identify and train a technology planning committee. This committee
should consist of staff, students, parents, and district leaders. Technology planning per se should not be a vacuum with a name. It should be incorporated throughout the entire school planning process (Gross, 1996). The time and resources must be allocated for this committee to function properly (Bailey & Lumley, 1995).

The next step is to prepare the committee to inform and make wise decisions, and specific data must be collected. This includes identifying and reviewing computer technology (i.e. microcomputers, lap tops, mainframe, networking, etc.), telecommunications for technology (i.e. on-line databases, facsimile transmission, distance learning, satellite, cable t.v., video disc technology videodisc, CD ROM), and instructional, and a static technology (i.e. electronic card catalog, computerized circulation, hypermedia/multimedia, Integrated Learning Systems, etc.) (Bailey & Lumley, 1995).

The third step is to assess the current state of technology in the school. Questions to be addressed include: What technologies are currently in the schools? What hardware and software are currently available and where are they located? What are the current staff skills in technology? What are the
current staff development opportunities in technology? Who is currently responsible for technology in the school? What technology related curriculum applications are being used? Are there guiding documents (i.e. philosophy statement, mission statement, etc.) for technology? (Bailey & Lumley, 1995).

Administrators must act on their vision of technology education. If the integration of computers into curriculum and instruction is a goal, then the principal must determine what hardware and software exists in the building, and how and if it is being used (Bennett, 1996).

The fourth step is to develop guiding documents for technology. The first guiding document is a philosophy statement which articulates the schools’ beliefs related to the emerging technologies for all stakeholders in the school. This statement identifies ideas and values, as well as opinions related to the power of technology as a teaching tool (Bailey & Lumley, 1995). The committee should insure there is no repeat of existing documents which serve different purposes (e.g. curriculum, staff development).
The second guiding document should identify a mission statement which is a shortened form of the philosophy statement. This mission statement is significant and powerful because it falls out of the philosophy statement and should be used to communicate with people in the school as well as outside of the school (Bailey & Lumley, 1995).

The third guiding document includes a series of technology goal statements which are 5 to 10 in number and relate to teaching and learning with reference to the upcoming technologies. Technological goals are important when developing subject goals (Hemphill, 1996). When the documents are completed the committee should construct a plan, guide, or blue-print that translates this information into a long-range technology plan.

The fifth and sixth steps are to develop the long-range technology plan and to implement and institutionalize the technology plan. According to Bailey and Lumley (1995), the long range plan should take into consideration numerous issues:

- location--portable labs, stationary labs, single or multiple units in classrooms;
- facilities-- space,
climate control, classroom phone lines and cables, lighting, electrical requirements, furniture, storage, and floors; staff development-- teacher empowerment, incentives and hands-on training; leadership-- district building motivation, vision, and equity; budget-- capital costs, developmental costs, expansion costs, operating costs, and ongoing staff development costs. (Bailey & Lumley, p.50)

Also, during this time two subcommittees may be developed: software and hardware. Their prime task is to gather information on software and hardware programs.

The approval of the technology plan by the school is important. The committee must present all the information researched. After the plan is adopted the two most important and often overlooked institutionalizing activities are the monitoring and adjustment of the technology plan. In these activities, the committee has four major responsibilities:
(a) Continuous collection of building program evaluation data;
(b) continuous data analysis using predetermined criteria;
(c) continuous modifications when they are appropriate; and
(d) periodic updating of teachers, students, and parents (Bailey & Lumley, p. 53).

Cost plays an important factor when determining a technology plan. School budgets are shrinking, and technology awareness is increasing. Administrators must be knowledgeable of grants and funds available for technology. The monies are there, it takes the commitment of the administrator to seek it (Carter, 1995).

An effective administrator recognizes the importance of short and long term planning. Such an administrator often takes advantage of every opportunity to give students, faculty, and staff access to the technology needed. (S)He also convinces the community that if tomorrow is important, technology is important, and that they must support its place in education (West, 1994).

**Conclusion**

An effective administrator must be open to new ideas. (S)He must entice change and challenges. Time and resources must be provided for this to happen. We must live the vision. We have to appreciate differences to foster understanding,
trust, and openness with each other (Markavitch, 1994).

We have to get everyone involved. The students, staff, parents, and community must have input. If we do not get all these viewpoints, we will experience an uprising in the school and community. If the community does not have any input, you will struggle trying to communicate your vision as well as get their assistance, morally and financially (Carson, 1994).

As a future administrator, my vision is to establish a positive environment for the students. I want staff, students, parents, and community to feel that they can come to me with their concerns and we can work together to find solutions.

I realize that I cannot solve all the world’s problems, but I can help people learn how to solve their own problems. I can make some changes in education towards equality. From the information shared through my instructors at the University of Northern Iowa and my mentors, I feel I will make a positive impact on education. I will have to remember the strategies I have learned to be a successful administrator.

The notion that the principal who acts as the all-knowing patriarch of the school and who wisely solves all problems has
passed (Clark, 1995). The principal must be able to form partnerships with his/her communities and be willing to share some of the "power" to get things done (Lambert, 1995).

In addition, the principal must focus on instructional technology. To this end, (s)he must make an inventory of existing technology. He must also focus attention on access, usage and training for staff and students.
Reference List


Hemphill, J. (1996). *How should the increasing use of technology be integrated into a school's planning process for school improvement?* (Technology Monograph No. 1). Cedar Falls: University of Northern Iowa, Institute for Educational Leadership.


Sutton., J & Ferrare., J. *How will the increasing uses of technology in schools change how, where, and what students will learn?* (An Iowa Dialogue on issues surrounding utilization of technology in schools. Monograph No. 1). Cedar Falls: Institute for Educational Leadership, University of Northern Iowa.

