A Solution-Finding Report

Title*: Inservice Teachers' Difficulties With and Resistance to Curricular Innovation*
Date: May 3, 2016

This Solution-Finding Report provides information requested on the topic of inservice teachers finding it difficult to implement, or resisting, curricular innovation. Many of the citations below also deal with ways to overcome these difficulties and this resistance.

Solution-finding Reports are intended to provide a quick response to the request for information; they are not intended to be a definitive literature survey or synthesis of the topic.

Anthony, H. G., Garber, D., & Johnson, G. (2007, November). *Preparation of Teachers for a Rapidly Changing Technological World: Engineering in Teacher Education*. Paper presented at the Meeting the Growing Demand for Engineers and Their Educators 2010-2020 International Summit, Institute of Electrical and Electronics Engineers, Munich, Germany.

http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4760369

This paper's Abstract begins, "If we are to find effective ways to reverse the trends that point to growing technological illiteracy of the population, teacher preparation and engineer preparation communities need to cooperate. Without effective contributions of the teacher preparation community, engineering schools will face dwindling populations of applicants and will spend their resources on remedial work rather than focusing on technology and innovation. Without effective contributions of the engineer preparation community, critical feedback will be missing on what is needed at the pre-university stages of technological education."

Armstrong, A. (2011). 4 Key Strategies to Help Educators Overcome Resistance to Change. *Tools for Schools*, *14*(2), 1–7.

http://learningforward.org/docs/tools-for-learning-schools/tools1-11.pdf

This article states, "Those who have tried to implement lasting change can attest that it is a complicated process. Numerous studies, theories, and books on the change process have flourished within the last 20 years. 'Change is a science now,' said Shirley Hord, educational consultant and scholar laureate for Learning Forward. 'We have studied it for over 40 years and know a great deal about it.' While change itself is a complicated process, a review of change literature reveals four basic stages that help innovators preemptively reduce the amount of resistance encountered and provide ongoing frameworks for preventing and overcoming resistance: build trust, create a clear vision, ensure a strong and consistent implementation, and support the change with consistent follow-through."

Benett, Y. (1980) Teachers' Attitudes to Curriculum Innovation: Making Explicit a Psychological Perspective. *The Vocational Aspect of Education*, *32*(83), 71–76.

http://www.tandfonline.com/doi/pdf/10.1080/10408347308001381

The Introduction to this article states, in part, "The present article is a discussion of the psychological process which, it is submitted, may mediate in part the development of teachers' attitudes to curriculum innovation and account for variations in these attitudes."

Bennie, K., & Newstead, K. (1999). Obstacles to implementing a new curriculum. In M. J. Smit & A. S. Jordaan (Eds.), *Proceedings of the National Subject Didactics Symposium* (pp. 150–157). Stellenbosch, South Africa: University of Stellenbosch.

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.424.4668&rep=rep1&type=pdf

The introduction of a new curriculum poses a range of challenges to teachers and schools. This paper reports on an attempt by MALATI (Mathematics Learning and Teaching Initiative) to implement the statistics aspect of the Mathematics, Mathematical Literacy and Mathematical Sciences Learning Area, an area of study regarded as a particular challenge for curriculum innovation. Obstacles to the curriculum implementation are identified, including the nature of official curriculum documents, teacher content knowledge, the nature of the topic, differences between teachers' beliefs and the underlying ideology of the proposed curriculum, learner and parental expectations, institutional arrangements, and time restrictions. Attempts to address these factors are also described.

Blin, F., & Munro, M. (2007). Why Hasn't Technology Disrupted Academics' Teaching Practices? Understanding Resistance to Change through the Lens of Activity Theory. *Computers and Education*, *50*(2), 475–490.

http://eprints.teachingandlearning.ie/1790/1/Blin%20and%20Munro%202008.pdf

According to this paper's Abstract, "The advent of the Internet heralded predictions that e-learning would transform and disrupt teaching practices in higher education. E-learning also promised to expand opportunities for lifelong and flexible learning, and offered a panacea for practical issues such as decreased funding and increasing student numbers. The anticipated disruption to teaching and learning has not come to fruition however. Although technology is now commonplace in most higher education institutions – most institutions have invested in a virtual learning environment (VLE) and employ staff dedicated to supporting e-learning – there is little evidence of significant impact on teaching practices and current implementations are accused of being focused on improving administration and replicating behaviourist, content-driven models. This paper discusses a preliminary analysis, rooted in Activity Theory, of the transformation of teaching practices, which did or did not take place in our university following the institution-wide deployment of a VLE. In particular, factors limiting a full uptake of the VLE more advanced functionalities by the wider university community are explored."

Bohn, J. (2014). Turning Resistant Teachers into Resilient Teachers. *ASCD Express*, *9*(10).

http://www.ascd.org/ascd-express/vol9/910-bohn.aspx

This author claims, "I have found that resistant teachers usually fall into one of the following categories:

- Those who believe administration will not help or understand them.
- Those who don't have confidence in their teaching and don't know how to improve.
- Those who prefer traditional methods and believe change would require too much work.
- Those who lack the desire or motivation to improve.

"Most reluctant teachers fall into the first three categories and can be developed into resilient teachers. The fourth category is much more rare and requires a steadfast administrator. In the next sections, I outline some ways I've worked with these different types of resistance."

Carey, J. (2013). How to Get Hesitant Teachers to Use Technology. Powerful Learning Practice Network.

http://plpnetwork.com/2013/03/27/hesitant-teachers-technology/

This article begins, "In my consulting as well as administrative technology work, I am often asked the same questions by different schools and officials. One of the most common is: 'How do you get teachers who are hesitant or resistant to use technology?' I am keenly aware that many of my colleagues are not, for various reasons, gung ho about educational technology. And it's interesting. Quite often, the teachers who are hesitant to adopt new technology are great — in fact, amazing — educators. They are frequently veterans and usually leaders in their academic field and within their institutions. In my role as tech advocate, I habitually find myself trying to coax these established educators to use new tools and incorporate new methodologies. Here are some ways I have found to be successful in this endeavor."

Center for Implementing Technology in Education. (2013). Technology Implementation in Schools: Key Factors to Consider. Washington, DC: Author.

http://www.cited.org/index.aspx?page_id=187

According to this article, "While some type of technology is present in nearly every classroom in the country, it is rarely used to its fullest potential. Some of this discrepancy is due to a lack of comfort with using technology for teaching and learning. Even teachers who are using technology and report a high degree of comfort with technology tend to use it in fairly rigid ways, such as searching for activities to use with students, communicating with other teachers, and word processing….While many teachers still feel uncomfortable using technology in their teaching practice, it is also likely that teachers feel new technologies are unproven in the classroom. Though there has been a great deal of research on the efficacy of technology tools for teaching and learning, many of these studies may not translate well to the reality of the classroom."

Cooper, R. (1998). *Socio-Cultural and Within-School Factors That Affect the Quality of Implementation of School-Wide Programs*. Report No. 28. Baltimore, MD: Center for Research on the Education of Students Placed At Risk (CRESPAR).

http://files.eric.ed.gov/fulltext/ED426173.pdf

Quantitative and qualitative analyses of the quality of implementation of the Success for All school restructuring program were conducted in a sample of more than 350 schools to examine how this program and other school-wide restructuring programs can best maintain their integrity and quality as they simultaneously adapt to local school and community contexts. The within-school factors identified by the quantitative analyses as contributing to high-quality implementation were: (1) creation of a supportive culture for institutional changes; (2) overcoming program resistance on the part of a minority of teachers; (3) commitment to implementing the structures of the program; (4) a strong school-site facilitator; (5) less concern among teachers for handling an increased workload; and (6) availability of program materials. Of the many within-school factors identified in this research, program resistance emerged as having the greatest impact on implementation quality.

Emo, W. (2010). Teachers Who Initiate Curriculum Innovations: Motivations and Benefits. (Doctoral dissertation, University of York).

http://www.storyline-scotland.com/emoconclusion.pdf

What explains teacher-initiated curriculum innovation? Sparse but consistent literature in theories of motivation, teacher career development, teacher identity, and change in education shows that teachers value complexity and the opportunity to challenge themselves. Teachers who innovate often were motivated by the desire to effect social change or by the realization that curriculum presentations could be more effective. How teachers work through self-initiated innovations and how the self-initiated innovations affected their identities was not well defined by the works consulted. To better explain teachers' self-initiated innovations, the main aim of this study was to explore the views of South Dakota teachers concerning their involvement in initiating curriculum change.

Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher Technology Change: How Knowledge, Confidence, Beliefs, and Culture Intersect. *Journal of Research on Technology in Education*, *42*(3), 255–284.

http://marianrosenberg.wiki.westga.edu/file/view/ErtmerPTeacherTechnology.pdf

Despite increases in computer access and technology training, technology is not being used to support the kinds of instruction believed to be most powerful. In this paper, the authors examine technology integration through the lens of the teacher as an agent of change: What are the necessary characteristics, or qualities, that enable teachers to leverage technology resources as meaningful pedagogical tools? To answer this question, we discuss the literature related to four variables of teacher change: knowledge, self-efficacy, pedagogical beliefs, and subject and school culture. Specifically, we propose that teachers' mindsets must change to include the idea that "teaching is not effective without the appropriate use of information and communication technologies (ICT) resources to facilitate student learning." Implications are discussed in terms of both teacher education and professional development programs.

Ertmer, P. A., Ottenbreit-Leftwich, A. T., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher Beliefs and Technology Integration Practices: A Critical Relationship. *Computers & Education*, *59*(2), 423–435.

http://marianrosenberg.wiki.westga.edu/file/view/ErtmerPTeacherBeliefs.pdf

Early studies indicated that teachers' enacted beliefs, particularly in terms of classroom technology practices, often did not align with their espoused beliefs. Researchers concluded this was due, at least in part, to a variety of external barriers that prevented teachers from using technology in ways that aligned more closely with their beliefs. However, many of these barriers (access, support, etc.) have since been eliminated in the majority of schools. This multiple case-study research was designed to revisit the question, "How do the pedagogical beliefs and classroom technology practices of teachers, recognized for their technology uses, align?"

Hermans, R., Tondeur, J., van Braak, J., & Valcke, M. (2008). The Impact of Primary School Teachers' Educational Beliefs on the Classroom Use of Computers. Computers & Education, *51*(4), 1499–1509.

https://biblio.ugent.be/publication/444938/file/6814213.pdf

For many years, researchers have searched for the factors affecting the use of computers in the classroom. In studying the antecedents of educational computer use, many studies adopt a rather limited view because only technology-related variables, such as attitudes to computers and computer experience were taken into account. This study centers on teachers' educational beliefs (constructivist beliefs, traditional beliefs) as antecedent of computer use, while controlling for the impact of technology-related variables (computer experience, general computer attitudes) and demographical variables (sex, age).

Howard, S. K. (2013). Risk-Aversion: Understanding Teachers' Resistance to Technology Integration. *Technology, Pedagogy and Education*, *22*(3), 357–372.

http://www.tandfonline.com/doi/pdf/10.1080/1475939X.2013.802995

This article begins, "Teachers who do not integrate technology are often labelled as 'resistant' to change. Yet, considerable uncertainties remain about appropriate uses and actual value of technology in teaching and learning, which can make integration and change seem risky. The purpose of this article is to explore the nature of teachers' analytical and affective risk perceptions, and how these influence decisions to integrate technology in their teaching practice. These ideas are explored through an in-depth qualitative analysis of teacher interviews focusing on experiences with, and beliefs about, technology and teaching. Results suggest decisions to integrate technology in teaching are influenced by negative affective responses to technology, general risk-aversion in teaching, and the perceived value of technology in teaching."

Huberman, A. M. (1973). *Understanding Change in Education: An Introduction*. Experiments and Innovations in Education #4. Paris, France: UNESCO.

http://files.eric.ed.gov/fulltext/ED082330.pdf

This classic study attempts to sum up the present state of knowledge on the process of innovation in education through a synthesis of previous writings on the subject. The author approaches this material from an international and comparative point of view and shows the need for more systematic reporting of cases of change from other parts of the world. The publication is intended to serve as the basis for a seminar in institutions of training and research or to provide a busy administrator with ideas on how he may strive for qualitative improvements and increased effectiveness in his educational system. The study examines at some length the concept of innovation and those factors and agents that prohibit or encourage innovation. The greater part of the study is concerned with the mechanism of innovation. This analysis leads finally to the presentation of these three models that can each be used to account for the way certain innovations take place: research and development, social interaction, and problem solving. The study concludes with some remarks on the problem of evaluating the process of educational change so that the results can be demonstrated when measured against the initial objectives.

Jorgenson, O. (2006). Why Curriculum Change Is Difficult and Necessary. *Independent School Magazine*. Washington, DC: National Association of Independent Schools.

http://www.nais.org/Magazines-Newsletters/ISMagazine/Pages/Why-Curriculum-Change-Is-Difficult-and-Necessary.aspx

The author of this article has discovered "that faculty resistance to formalized instructional improvement and curricular change builds not because teachers lack desire or capacity to improve, but because, collectively, teachers value their autonomy, worry about their ever-increasing workload and time constraints, and are, by nature, averse to risk and change."

Koksal, H. (2013). Reducing Teacher Resistance to Change and Innovations. Prepared address, Kingston University, London, England.

http://linc.mit.edu/linc2013/proceedings/Session10/Session10Koksal.pdf

This paper discusses the reasons for teacher resistance to change and innovations in educational settings, with particular respect to the role of teacher education. It emphasizes the kinds of innovations, their characteristics, the reasons for teachers' resistance to using technology, and some suggestions to handle "this important problem of our age."

Laffey, J. (2004). Appropriation, Mastery and Resistance to Technology in Early Childhood Preservice Teacher Education. *Journal of Research on Technology in Education*, *36*(4), 361–382.

http://files.eric.ed.gov/fulltext/EJ690935.pdf

Although this report describes how early childhood preservice teachers appropriate, master, and/or resist learning to use technology in teaching, today's preservice teacher is tomorrow's inservice teacher, and habits that have developed early are often hard to break. Among other things, this study found that "preservice teachers plan to use technology as teachers outside of the classroom (research, communication with peers and administrators, materials preparation), but resist seeing technology as a part of their relationship with children." It also says that some of the resistance to the use of technology in early childhood education for preservice teachers "may be rooted in the controversy about how exposure to technology may be harming young children."

Lee, J. C. (2000). Teacher Receptivity to Curriculum Change in the Implementation Stage: The Case of Environmental Education in Hong Kong. *Journal of Curriculum Studies*, *32*(1), 95–115.

http://www.speakeasydesigns.com/SDSU/student/SAGE/compsprep/teacher_receptivity_to_change.pdf

This study examines teacher receptivity to the curriculum change embodied in the new environmental education guidelines in Hong Kong. A questionnaire survey, based on a 'receptivity to change' instrument, was distributed, and case studies conducted. The analyses revealed that such variables as the perceived non-monetary cost-benefit of implementing the guidelines, perceived practicality, perceived school and other support, and issues of concern were predictors for teachers' behavioral intentions towards promoting environmental education.

Mâţă, L. (2012). Reinventing Classroom Space to Re-energise Information Literacy Instruction. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, *6*(6), 1222–1230.

http://waset.org/publications/10423/key-factors-of-curriculum-innovation-in-language-teacher-education

The focus of this study is understanding the factors of curriculum innovation from the perspective of language teacher education. The overall aim of the study is to investigate language educators' perceptions of factors of curriculum innovation. In the theoretical framework, the main focus is on discussing the different curriculum approaches for language teacher education and limiting and facilitating factors of innovation.

Morgan, C., & Xu, G. R. (2011, July). Reconceptualising 'Obstacles' to Teacher Implementation of Curriculum Reform: Beyond Beliefs. Paper presented at the Manchester Metropolitan University Conference, Manchester, England.

http://www.esri.mmu.ac.uk/mect/papers_11/Morgan.pdf

The abstract for this paper states, "Teachers' beliefs about mathematics, teaching and learning are often identified as an obstacle to the successful implementation of curriculum reforms. Rather than locating reasons for such lack of success with the psychology of individuals, we adopt a social perspective as we seek to develop a way of understanding teachers' interaction with reforms, drawing on critical discourse theory and Bernstein's notion of recontextualisation. This approach is illustrated by a study of mathematics curriculum reform in China."

Morris, P. (1988). Teachers' Attitudes Towards a Curriculum Innovation: An East Asian Study. *Research in Education*, *40*, 75–87.

http://search.proquest.com/docview/1307445176?pq-origsite=gscholar

This paper summarizes the results of a research project in Hong Kong which examined the characteristics of teachers' attitudes towards teaching approaches. According to the paper, this is an important issue "because a number of curricular innovations in Hong Kong, as elsewhere, require or promote a 'new' teaching approach."

Nisbet, R. I., & Collins, J. M. (1978). Barriers and Resistance to Innovation. *Australian Journal of Teacher Education*, *3*(1), 2–29.

http://ro.ecu.edu.au/cgi/viewcontent.cgi?article=1019&context=ajte

The paper examines some of the theoretical and empirical literature on the acceptance or rejection of innovation in school settings. A number of innovations models are examined and comment made upon their application. A comment is made on a case study of the diffusion of a particular innovation in social science teaching in Queensland schools.

O'Hanlon, C. (2009). Resistance Is Futile. *T.H.E. Journal*, *36*(3), 32–36.

https://thejournal.com/Articles/2009/03/01/Resistance-is-Futile.aspx

According to this article, "Exact figures on how many teachers do not use technology can only be guessed at; however, anecdotal evidence from vendors and school districts alike indicates resistance to technology adoption is still a problem among a significant portion of the teacher population. How can school districts get universal teacher buy-in for new technologies? The simple answer is, they can't. But before trying to win over as many technology converts as possible, a district must take the first step of understanding why resistance exists within its teacher population. The second step is to carry out the solutions to help crack it." It claims, "With many teachers, the way a technology is introduced into the academic environment can mean the difference between adoption and abandonment. If teachers believe they are being forced into using it, they will resist, especially if you don't show them what value it will bring to their classroom. [T]he feeling teachers can have of being overwhelmed by a new technology if they are not given enough time to learn it may be the biggest inhibitor to adoption."

Pass, D. (2007). A Computer Technology Integration Initiative: Factors that Contribute to Use and Non-use by the Elementary Classroom Teacher. In T. Bastiaens & S. Carliner (Eds.), *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2007* (pp. 6451-6459). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

https://www.editlib.org/p/26808/

This paper explores factors that influence the use of computer technology in the elementary classroom by teachers involved in a school-wide initiative. The original study consisted of teacher volunteers for one of two groups, a treatment group that received a professional development intervention, and a comparison group that received no professional development. The intervention modeled a constructivist hands-on approach to creating technology-rich lessons based on classroom curricula and Internet technologies. The lessons created by the teachers in the treatment group were posted on a web-based site and made available for access by students of teachers in the research and comparison groups. Administrative surveys were collected at the end of each school year to investigate factors related to the use or nonuse of this computer technology resource by teachers with their students.

Price, B., Cates, W. M., & Bodzin, A. M. (2002, June). Challenges in Implementing Technology-Rich Curricular High School Biology Materials: First Year Findings from the *Exploring Life* Project. Paper presented at the annual meeting of the National Educational Computing Conference, San Antonio, TX.

http://www.lehigh.edu/~inexlife/papers/necc2002.pdf

In this study, 18 high school biology teachers from a stratified sample of 13 distinct geographical United States regions participated in evaluation of the first-year prototypes of *Biology: Exploring Life*, a biology program that includes a textbook with an accompanying Internet component and wet-lab investigations. Web activities explain and reinforce the text and promote active, hands-on learning. The major questions the authors sought to answer through their study were:

- How ready are biology teachers who are early adopters of technology to employ a curriculum that requires students to use computers on a regular or even daily basis?
- What motivation, additional education, hardware, or skills do teachers require in order to integrate almost-daily computer use into the curriculum?
- Do high schools have the adequate technology facilities to implement a curricular program that incorporates students using computers on an almost-daily basis?
- How might existing schools change to support a technology-based curricular program?

Richardson, V. (1990). Significant and Worthwhile Change in Teaching Practice. *Educational Researcher*, *19*(7), 10–18.

http://edr.sagepub.com/content/19/7/10.full.pdf+html

This paper addresses two questions: What is involved in bringing about significant and worthwhile change in teaching practices? How can or should research aid in this process? In order to do so, two related literatures are explored—teacher change and learning to teach. These literatures are used to develop a third perspective, grounded in examples from a teacher change research project funded by the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This perspective suggests that empirical premises derived from research be considered as warranted practice, which, in combination with teachers' practical knowledge, become the content of reflective teacher change. It also suggests that practice should be viewed as activity embedded in theory. The paper concludes with suggestions for ways of approaching the introduction of research into teachers' ways of thinking.

Thomas, D. (2014). *Resistance to Curriculum Changes*. Educational Research Techniques.

https://educationalresearchtechniques.wordpress.com/2014/11/18/resistance-to-curriculum-changes/

This article begins, "It is common for people to dislike change. When curriculum implementation is taking place there may be resistance to the new ideas and innovations presented." It then goes on to list common reasons people may resist change, including lack of ownership, lack of benefit, more work, lack of support, and insecurity.

Van den Akker, J., Keursten, P., & Plomp, T. (1992). The Integration of Computer Use in Education. *International Journal of Educational Research*, *17*(1), 65–75.

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.527.7617&rep=rep1&type=pdf

This article's Abstract claims, "There is an increasing awareness that disappointing experiences with the introduction of computers in education are a consequence of insufficiently taking into account factors that are crucial when introducing change in educational settings. Many of the problems in the literature show great similarity with the kind of problems often experienced in curriculum implementation. In this context the endeavors to make computer use an integrated part of classroom activities are analyzed. Emphasis will be laid on the interaction between teachers and courseware; elements for a more effective strategy for the integration of computer use in educational practice will be presented, with special attention to the design of support materials as an essential part of courseware.

Varank, I., & Tozoğlu, D. (2006). Why are teachers resistant to change? Key issues and challenges in technology integration. *Afyon Kocetepe Universitesi Sosyal Bilimler Dergisi*, *8*, 193–207.

http://www.aku.edu.tr/aku/dosyayonetimi/sosyalbilens/dergi/VIII1/ivarank.pdf

This article states, "Even though technology can be an effective tool when used properly in teaching and learning, teachers still show resistance to integrate technology into their classrooms. The purpose of this article is to investigate key issues and challenges concerning technology integration into the classroom." It says researchers have been investigating why educators at all levels show unwillingness and lack of enthusiasm about technology integration into the classroom and, while several reasons have been discussed in the literature, it is difficult to put those reasons into an accurate categorization because they are not clearly separated from each other. The article uses two categories for the reasons: environmental (extrinsic) factors and personal (intrinsic) factors. Environmental factors include insufficient quality and quantity of hardware and software; insufficient technical, pedagogical, and administrative support; and inadequate teacher training. Personal factors include lack of confidence and feeling uncomfortable, frightened, threatened, and intimidated by computers. "There are three major personal variables or factors: anxiety about technology, teachers' or faculties' personalities, and attitudes towards technology integration."

Yeung, S. Y. S., Lam, J. T. S., Leung, A. W. L., & Lo, Y. C. (2012). *Curriculum Change and Innovation*. Hong Kong, China: Hong Kong University Press.

https://muse.jhu.edu/book/17799

This book is an introductory textbook on Hong Kong's school curriculum. Written in an approachable style using illustrative case studies, the textbook provides an introduction to the basic concepts and theories of "curriculum" as a field of study. It also discusses how sociopolitical and economic changes as well as technology advancements help transform teachers' roles and reshape curriculum policies. The chapters cover a wide range of topics, including curriculum design, planning, implementation, and evaluation. Chapter 7 is called Strategies for Change and Curriculum Implementation.

Zimmerman, J. (2006). Why Some Teachers Resist Change and What Principals Can Do About It. *NASSP Bulletin*, *90*(3), 238–249.

http://bul.sagepub.com/content/90/3/238.full.pdf+html

Schools across the country are pressured to reform by federal and state mandates. Because resistance is a major factor in reform failure, it is crucial for principals to discover why teachers resist change. This article explores the leadership and organizational change literature regarding some common barriers to change. Research-based strategies to promote change readiness and steps to overcome resistance are provided, including shared decision making, collaboration, professional development, principal's modeling, and preparedness for limiting forces of resistance.