Faculty Development Plan

Teacher Education
(2013-2015)

I. Teaching

Strengths

My first year here at BYU I taught three sections of the foundations course in multicultural education, for Elementary Education majors. Next year I will teach two sections of this class, in addition to a doctoral seminar on Design-Based Research in the McKay School EIME Program. Having never been a BYU student, I am thrilled at the opportunity to weave gospel insights into topics I am passionate about. In the multicultural education class this includes issues like social class, racism, immigration, social equity, segregation, culturally responsive teaching, and institutional discrimination.

I enjoy bringing theoretical, empirical, as well as gospel literature to bear on these issues. I understand discussions on some of these topics can be difficult. Yet I feel my way of interacting with students reduces some of their reluctance and sense of vulnerability. My own research addresses learning opportunities for children from low-income, immigrant, and racial/ethnic minority backgrounds. I stay up-to-date, therefore, on recent theoretical and empirical advances in the field. So I sense I have a lot to offer students. I am passionate, and try my best to weave research with gospel literature. I work hard at being respectful to different and even opposing views, which students tend to appreciate in course evaluations. I have high expectations for students, and demonstrate this by regularly asking follow-up questions to their assertions and claims. I value critical thinking and sustained student effort, which they sense early on. They know I was passionate about improving school opportunities for society’s disadvantaged, but they also know multiple perspectives are heard and valued in class.

Areas to Develop

I also realize that I can overwhelm my students with too many constructs, too many facts, rushed discussions, and limited personal applications. I have received feedback from my students that essentially tells me I am too focused on content, on not enough on my relationships with them. I offer gospel insights here and there, but feel I can do more of it, especially after attending the spring faculty development seminar. I need to provide students more time to reflect on gospel insights in relation to course material. I need to provide more meaningful connections between the content and students’ own lives—their knowledge and lived experiences.

Blending technology in my classes has also been a challenge. Especially with content that evokes strong feelings, like the multicultural education class, I am learning that more content should be presented in person than online. On the other hand, I have found that the online format provides a fantastic opportunity to prepare students for deeper and more consequential discussions in class. I need to figure out a more optimal balance.

After the spring seminar, I realize that I can improve my relationships with students by being more authentic with them. This will build their trust. I am can be more authentic by sharing more from my personal life, especially ways in which I have experiences course-related concepts in private and professional settings. I can share more of my experiences as a teacher educator in rural California, as a researcher in Mexico, and as a school psychologist in inner-city Phoenix. I can encourage them more regularly to share their own experiences, to ask others’ about theirs, and to seek out new ones to better understand course concepts.
Finally, my relationships with students, and their understanding of the content, will improve as I provide specific and prompt feedback to their course assignments. Students have indicated that feedback comes slow, and that it is not always easy to locate on Learning Suite. Improving this in the future is a must.

Specific Goals and Strategic Plans

Defining attainable goals should be helpful for me to improve my teaching over the next couple years. Below I state these goals as well as plans I will pursue to attain them.

1) **Infuse content with personal applications.** This will build stronger relationships of trust with my students. I will state this goal explicitly in the first day of class, to make very clear my interest in connecting abstract concepts in class with their past, everyday, and future experiences. I plan to provide more anecdotes from my own life as well, realizing that this too can connect the abstract with the concrete. And I will encourage them to share relevant experiences in class. Doing so, in theory, will deepen their understanding of the material, increase their interest, and create a more familiar, trusting learning environment. It will require me to value teaching students first, and content second.

2) **Provide prompt and useful feedback to their written work.** Though this was a value and ambition I had this year, I was not always clear to students on how to find this feedback on Learning Suite, or the criteria I used to provide feedback. Also, it was not always prompt. My goal, then, is to provide written feedback to all assignments within a week that they are turned in. This might require me to reduce the number of written assignments. I will also let them know on day one, and remind them throughout the semester, where exactly they can locate my feedback on Learning Suite.

3) **Provide an optimal balance between asynchronous and face-to-face course formats.** We will need to spend more time in class together, and less online. Perhaps more importantly, asynchronous material will need to provide a better complement to the material we discuss in person. My plan is to engage them with enough—but not too much—interactive content and discussion prompts online to peak their curiosity for face-to-face sessions. I will gauge their interest throughout the semester and make iterative changes to the class as needed. The challenge will be to know how much and what kind of material to provide online without underwhelming them, on one hand, or inundating them on the other—so that in-class time is not perceived as overkill or redundant. Right now I am thinking that relevant videos, news articles, and digital dialog prompts will be the most useful types of asynchronous material.

Department Needs

The department is in the process of identifying ways to address the dispositions of teacher candidates, so that they are as prepared as possible to meet the developmental (cognitive, interpersonal, intrapersonal) needs of the children they will teach. Knowing how to get our students to think critically in relation to their own experiences is imperative in this regard. And it is at the heart of my efforts to improve EL ED 203. By meeting the above goals I will contribute to the meeting department objectives as well. Namely, I will be better positioned to help our graduates “recognize and promote the role of education in a democratic society.”
II. Citizenship

Strengths
I highly value my professional relationships with research colleagues across the country, and internationally. I was privileged to work at different institutions prior to my time at BYU, and continue to collaborate with colleagues there on scholarly activities. I continue to publish with them, review for different journals, and attend national and international conferences to strengthen these networks. I have served on planning committees for national and international conferences, including a summit on immigration with the American Psychological Association and a bi-national meeting for education researchers in Mexico City.

I enjoy collegial relationships within my department as well. I enjoy participating in programmatic decision-making and associated deliberations, as well as more scholarly deliberations. I especially enjoy engaging with colleagues invested in school and classroom improvement research—those committed to working closely with teachers and other practitioners to address problems of educational practice through rigorous research designs. This year I participated in the Teacher Education Research Seminar (TERS) within our department, as well as the Associates Program which brings BYU faculty and school district personnel together on a bi-monthly basis to discuss common readings and their relation to education practice.

Areas to Develop
Yet, I would like to integrate myself more—socially and substantively—at BYU, within the Teacher Ed department especially, as well as within the community of McKay School faculty more generally. I want to be better connected with my colleagues here. This year I served on a committee with the Dean and other college personnel to discuss ways of improving supports for external research grant writing. But I would like to actually engage in research activities with my BYU colleagues, within and outside of the department. I would like to work more intimately and regularly with graduate students. I would like to contribute to a larger vision for scholarly productivity within the McKay School. I would like to be part of some kind of committee next year to engage my department colleagues more regularly and more meaningfully.

Specific Goals and Strategic Plans
Defining attainable goals should help me to improve my citizenship over the next couple years. Below I state these goals as well as plans I will pursue to attain them.

1) **Develop research initiatives and publish with BYU colleagues.** Some work has been done, led by Dr. Barbara Culatta, to develop an interdepartmental research cluster on early literacy within the college. I plan to collaborate with these colleagues to gather and analyze original data on early literacy and language development for racial and ethnic minority children. Currently we are waiting for feedback from our Dean to see if our work will receive funding from an internal grant competition. Work within this research cluster should lead to publications with my BYU colleagues. We plan to publish in tier 1, peer-review journals. I also plan to publish peer-review articles with BYU colleagues and students using data I have already gathered from schools in California.

2) **Mentor graduate students.** I plan to sit on masters thesis committees and work with students in the Educational Inquiry, Measurement, and Evaluation (EIME) doctoral program. In the fall (of 2014) I will teach a research course in the EIME program. Currently an EIME student is working with me on an externally funded research project.
3) **Serve on department committees.** I will approach my department teacher and volunteer to serve on department committees. I will ask my department chairperson where help is needed, and how I can be of greatest use in my department.

*Department Needs*

Ours is one of the largest departments on campus. There are multiple needs, especially in managing our various undergraduate and graduate programs. Currently we are in the process of accreditation review, which encompasses multiple needs as well. I will be more upfront offering my help next year than I was this year. I hope that in the process I can contribute not only to bearing some of the workload, but also to collaboratively creating a vision for possible improvements and innovations in our future, all with the purpose of improving opportunities for the children our graduates will teach.

### III. Scholarship

*Strengths*

For nearly a decade I have developed a dogged focus on school improvement research for Latino children in the U.S., as well as schoolchildren in Mexico from low-income and rural communities. As a graduate student I benefitted from the mentoring of a wonderful Hispanic scholar, Eugene Garcia, who provided me countless opportunities. I was granted a Fulbright scholarship to conduct my dissertation in Mexico. And more recently I completed a post-doctoral fellowship sponsored by the Institute of Education Sciences (IES), the research arm for the U.S. Department of Education.

All of these experiences have combined to nurture a deep ambition and commitment in me to provide conceptual frameworks and empirical evidence in ways that improve learning and developmental opportunities for children from Latino (especially Mexican) and other racial and ethnic minority backgrounds. I recently co-edited a book on Mexican-American schooling published by Columbia University. A paper was recently accepted in a tier-1 research journal, and a couple others are currently under review.

Though I feel it is yet emergent, my work is highly collaborative. Recently it has led to two strands of work, both of which address ways of modeling (conceptually and empirically) classroom experiences that improve learning and developmental opportunities for young and underperforming minority children. First, we are interested in measuring cultural dimensions of classroom interactions in preschool and early elementary settings. Drawing on a conceptual model presented in one of our papers under review, this work recently received external funding from the National Academy of Education. I am working with colleagues at Cal State Long Beach, USC, UC Berkeley, Stanford, and other places to extend this work—to collect and analyze classroom data to improve the tool’s psychometric properties, and eventually publish it for broader use. Currently we have an external grant proposal under review at Spencer.

Second, I am working with colleagues in Mexico to develop an observational measure of classroom quality in preschool and early elementary grades. Adapting an existing measure developed in the U.S., this project was recently funded by an internal grant from the BYU McKay School. Next year we will be gathering over 300 hours of classroom video to develop this tool. We are presenting this work at an international conference in the UK, and plan to publish findings in a highly regarded, peer review journal on educational assessment.
Multiple experiences have led me to these research ambitions and commitments. My dissertation in Mexico taught me the importance of a bi-national approach to improve learning opportunities for Mexican-origin kids in the U.S. The Teachers Advancing Latino Literacy through Eco-cultural Research (TALLER) project in rural California taught me the importance of interdisciplinary approaches to classroom research. And my time at the University of Oregon taught me that though theory should be appropriately and tightly matched with analytic methods, conceptual orientations in research are the most valuable. Robust innovations are conceived first, and validated (with evidence) second. I am grateful for the time I had before coming to BYU to deliberate extensively on conceptual possibilities to improving learning opportunities for minority students. I sense it will have made all the difference in my career ahead.

**Areas to Develop**

Though I have published in good journals, there are a number of conference presentations that never translated into a peer-reviewed journal articles. Moreover, data have been gathered and then sit inactive on hard drives for longer than I would like. Journal article submissions are neglected as I move on to the next grant application, conference proposal, or research idea. I also feel like my work, to date, as been almost stuck at a conceptual/exploratory stage. I am interested in building theory, of course. But my deepest interests and commitments lie in developing and testing classroom improvements. I would like to see my work, in collaboration with others, address development and efficacy work in the near future, with a focus on professional development with teachers. Building on our current work, I want to design and test professional development initiatives that create more culturally responsive classroom learning opportunities for Mexican-origin and other racial/ethnic minority children. I am interested in testing how these opportunities improve young children’s language and cognitive functioning, social competencies, and self-beliefs. With Mexican colleagues, we plan to design and test these initiatives in preschool and early elementary settings to improve instructional supports and to enhance language and literacy learning opportunities in rural and low-income communities.

**Specific Goals and Strategic Plans**

Defining attainable goals should help me improve my scholarship over the next couple years. Below I state these goals as well as plans I will pursue to attain them.

1) **Submit more peer review journal articles.** It sounds incredibly simple, but for me, in practice, is quite profound: I can’t publish more if I don’t submit more. I need to submit more journal articles for publication. I am doing better this year. I have submitted 2 pieces, and plan to submit 3-4 more. By my 3-year review, my goal is to have maintained a constant stream of paper submissions—to always have 1-2 pieces in each of the three stages in the publication pipeline: a) in preparation, b) under review, and c) in press.

2) **Faster process from data gathering to publications.** Goal 1 will require faster turn around from data collection to publication. I need to develop a personal system to make sure this happens. One strategy I can incorporate is to commit myself to article submission before another beginning another task, no matter how pressing. I can also hold myself more accountable—and ask my mentor to hold me accountable—to submission deadlines I set for myself.

3) **Foster closer collaborations with BYU colleagues.** All of this will come more easily, I think, if I foster more intimate research relationships with BYU colleagues in my
department, college, and across campus. Continuing to participate in the research cluster mentioned early should help. I also plan to development relationships with folks (e.g., in sociology) who have common research interests and commitments.

**College/Department Needs**

Building research coalitions within and across McKay School departments will benefit us as a whole (e.g., productivity, morale, purpose). It is a need college wide. Also, there is a need for McKay researchers to connect more meaningfully with local schools through the school-university partnership housed by CITES. My work, in part, seeks to accomplish this. The McKay needs a stronger reputation with research and policy circles in education. We need to produce more influential scholarship. We need to be more productive, to more regularly publish in tier-1 journals, and to be better connected with top-notch scholars and scholarly institutions across the country and globe.
Purpose of this Project

The purpose of this project is to improve Digital Dialog posts in EIME 720 in order to:
- deepen students’ understanding of weekly topics, and
- engage peers in more meaningful exchanges about course content.

I have used Digital Dialog in undergraduate courses for similar purposes in the past, but overall did not sense that these objectives were reached. Some students posted honest reflections, but most were moderately sincere at best. Students did not grapple with the content as I intended, nor did they engage each other beyond statements like “I like how you…”, “I agree with Susan’s…”, or “I don’t agree…” (without a rationale).

Below I provide information on course, including its purpose, learning outcomes, course procedures, and descriptions of the assignments. Then I describe this course development project in more detail, including the data I plan to gather, how I will analyze it, some findings I anticipate (or hypothesize, if you will), and corollary revisions to the Digital Dialog assignment.

EIME 720 – Design-Based Research

Design-based research (DBR)—encapsulating a family of research approaches in education referred to as “design experiments”, “engineering research”, “formative experiments”, and “design research”—has developed over the past 20 or so years to provide evidence- and theory-based solutions to problems of educational practice. These practices primarily address ways of improving learning environments, through instructional and technological innovations in a variety of settings. DBR was developed, and continues to develop, to offer an epistemological middle ground between traditional interpretive and positivist approaches in educational research. Though driven by pragmatic sensibilities, issues of methodological rigor, interpretation, contextual relevance, and scaling (i.e., applying evidence-based principles across settings) are at the heart of DBR applications and deliberations.

Course Purpose and Description

This course situates the tenets, applications, and contributions of DBR within a series of historical and ongoing debates in educational research. We discuss how different scientific and epistemological stances perceive DBR, and how it has been applied since its conception. We identify and discuss at length the trademarks of DBR:
- Purposeful problem solving
- Collaborative inquiry
- Iterative study cycles
- Contextual analysis
- Practical usefulness
- Fine-grain theoretical contributions
In the spirit of iterative design, students will develop their own DBR projects in this course. This process will help you to appreciate the challenges and opportunities unique to DBR. Namely, students will be expected to understand a) the complexity of educational practice and, thus, the difficulty inherent in studying variables of interest; b) the importance of individual and contextual differences in instructional and technological innovations; c) how to identify, link, and refine theoretical claims to innovations; d) how to partner with practitioners and other stakeholders in DBR projects; and e) how to work in research teams.

Course Learning Outcomes

You will be expected to demonstrate competence and proficiency in how DBR:

- Compares and contrasts with other methodological and epistemological approaches in educational research;
- Cyclically and collaboratively applies analytic methods; and
- Contributes to educational theory and practice.

Course Procedures

All readings should be completed before we meet in class. Readings total 30 to 60 pages per week, and are meant to complement each other. The topics assigned are designed to build sequentially, so that you have a sense of how your understanding of the material is developing. We start by couching DBR in terms of traditional research in education designed to improve practice, principally through instructional and technological innovations. Then we address the tenets and contours of DBR as a whole, followed by focused discussion, week-by-week, related to specific topics in more depth. We will read an assortment of DBR studies meant to illustrate these topics. Whereas I draw on DBR examples from different fields (e.g., literacy, science education, educational technology), most focus on innovations in K-12 classroom settings. We end the course by imagining future possibilities for DBR, primarily issues related to scalability of instructional and technological innovations to enhance learning opportunities.

Attendance and participation are crucial to your understanding of the content and, thus, your grade. Each week we will discuss assigned topics. Students are encouraged to come with questions that emerge from the readings. We will draw on your Digital Dialog responses as well as updates related to your cumulative DBR project in class discussion. Progress on your DBR project will be iterative. You will be expected to make substantive progress on your project in relation to weekly topics. That is, it will be graded at key intervals to assess ongoing progress.

Course Assignments

The course includes two assignments: Digital Dialog reflections and your DBR project. The purpose of these assignments is to deepen your understanding of corresponding topics, and to find maximum utility in the assigned readings and related course discussions.
1) Digital Dialog reflections. Each week, prompts will be posted on Leaning Suite in relation to the assigned readings. The purpose of these prompts (some of which will be provided by the students) is for us to engage weekly topics in deeper, more personal ways. I am especially interested in how weekly readings are informing your DBR projects. Digital Dialog reflections will be formatted to be highly interactive, so that you are responding not only to the prompts but also to your colleagues and peers. Each week your post will be graded based on the below rubric.

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<th>Low</th>
<th>Mid</th>
<th>High</th>
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<tr>
<td>Understanding of Readings</td>
<td>References to readings are casual and uninteresting. Does not appear to understand their purpose and main arguments.</td>
<td>References to course readings are moderately meaningful and insightful. Main arguments of readings are addressed, but not deeply engaged.</td>
<td>Makes meaningful references to readings. It provides insights related to authors’ main arguments and analyses.</td>
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<td>Personal Application</td>
<td>Does not connect readings with his/her own research. Reference to the DBR project for this course is perfunctory.</td>
<td>Connections with their own research agenda are somewhat meaningful. Reference to the DBR course project is somewhat forced.</td>
<td>Makes meaningful connections with past, present, or future research initiatives s/he was/is/will be involved in, including the DBR project for this class.</td>
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<tr>
<td>Addressing Colleagues</td>
<td>References to colleagues and their work are general, brief, and/or not useful. Disagreements are rude and/or superficial.</td>
<td>Makes a modest effort to engage colleagues in discussion related to this week’s content. Disagreement is avoided or a bit edgy.</td>
<td>Acknowledges and builds of specific insights from colleagues. Disagreements are kind yet substantive.</td>
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2) DBR project. You are expected to identify a problem of practice, and plan a DBR study intended to shed light on that problem—to provide insight concerning a solution. It should be a practical problem with which you already have experience, as a practitioner, consultant, analyst, designer, evaluator, or another capacity. Most projects will address instructional and/or technological innovations of some kind or another, but I am open to other ideas as well. Your proposal should cite and build on an extensive review of existing research literature, as well as current theoretical propositions. This assignment is meant to be useful to you and your professional interests and commitments. The more knowledge and experience you have with regard to the problem identified, the better.

Your DBR plan will be graded at the middle and at the end of the semester, in terms of how well it addresses the components discussed in class:
Problem Identification – should be clear, tractable, and grounded in extant research
Collaborative Inquiry – clear and feasible plan for joint collaboration with practitioners, users, implementers, and/or others
Iterative Study Cycles – provide logical sequences and enough time for implementation, observation, analysis, and revisions; as many cycles as needed, and justifications for each
Contextual Analysis – address how the intervention or planned solution accounts for contextual variance, including the roles of individual characteristics and setting attributes
Methods – clear and concise alignment between theoretical claims under scrutiny, data gathering, measurement, and analytic plans, for all study cycles. In many cases this includes weaving inductive and deductive analyses. Methods should account for this.
Theory Contribution – how study intends to inform fine theoretical propositions
Practice Contribution – how study intends to inform practice improvements, using results to craft instructional and/or technological principles.
Scaling Implications – suggestions for shifting from a small to larger development study, an efficacy trial, or some combination of the two.

This Course Development Project

As mentioned above, graduate students enrolled in EIME 720 will be expected to post 10 Digital Dialog reflections. Also above, I provide a grading rubric based on three criteria: understanding of readings, personal applications, and addressing colleagues. I did not include this rubric in courses past. I plan to use multiple data sources to make as many revisions to the DD assignment as possible. Revisions will primarily address assignment delivery—e.g., quality of prompts, due dates for posting, smaller group discussions, group leaders, etc. But I am open to other changes that emerge from the data as well, so long as they strengthen the purpose of this assignment: a) deepen students’ understanding of weekly topics, and b) engage peers in more meaningful exchanges about course content.

Scores derived from this grading rubric, field notes from class discussions, interviews with students, the mid-course evaluation, and separate surveys (if needed) will be analyzed over time to make as many revisions as necessary to the process of the Digital Dialog assignment. I will track these revisions and subsequent changes on assignment scores to gauge improvement. The ultimate marker for improvement—the student outcome if you will—will be student scores on their Digital Dialog posts. Importantly, the rubric provided here is not necessarily set in stone, so long as the objectives for this project are attained.

Anticipated Findings and Associated Revisions

Of course, students in this class will be more developed professionally and intellectually than the undergrads I have worked with on DD assignments in the past. So I have higher expectations for them. I suspect they will demonstrate deep understanding of the reading and make mid to high personal applications, on average. But I also suspect their mutual engagement—the extent to which they address one another’s views in their DD posts—will be modest at best. Academia is not the most socially interactive atmosphere. I suspect changes to the process of this assignment, therefore, will mostly require parameters for group interaction. I am not entirely sure how the students will suggest going about this, but I look forward to their honest input.
Background

My research addresses classroom improvements for Latino children in the U.S., as well as schoolchildren in Mexico from low-income and rural communities. Recently it has split into two strands of work, both of which address ways of modeling (conceptually and empirically) classroom experiences that improve learning and developmental opportunities for young and underperforming minority children. I want to focus on the first strand for this project: establishing a clearer trajectory for creating a new classroom observation measure designed to improve cultural responsiveness for underperforming minority children.

In collaboration with colleagues at other institutions, we are developing a measurement model of sociocultural interactions in classroom settings. We recently received external funding for this project from the National Academy of Education for one year. I am working with researchers at Cal State Long Beach, USC, UC Berkeley, and Stanford to extend this work—to collect and analyze classroom data to improve the tool’s psychometric properties, and eventually publish it for broader use. Currently we have an external grant proposal under review at Spencer.

But the longer-term trajectory of this work remains unclear. At this point I am not sure what would be a reasonable target date to publish the observational tool, or all of the steps to address along the way. Our focus on external grant getting for the tool, in a way, has limited our vision of longer-term objectives and possibilities. The eventual intent of this measurement work has been to actually intervene—to develop, test, refine, retest, and then, accordingly, provide evidence-based ways of improving cultural responsiveness in classrooms and, thus, enhanced learning and development opportunities for low-income and minority children. But this goal, to date, has been obfuscated by short-term planning, albeit important.

A Short-Term Goal

My goal over the next few months, therefore, is to develop a clearer, long-term plan for this measurement initiative. I want to develop an ambitious yet reasonable timeline for the next 5 years or so. How will we develop the tool further? What data will need to be gathered and analyzed? Who will be the critical collaborators? What funding sources will we target? What company will publish the tool? How will it be marketed? What products (e.g., user’s manual, training initiatives, dimensions overview) will be developed? And so on.

As part of this short-term goal, I want to foster closer collaborations with BYU colleagues. I am interested in closely collaborating with another BYU faculty member on this work. Continuing to participate in the research cluster mentioned earlier should help. I also plan to continue working with one or two PhD students in the EIME program on this project.

Some strategies to reach this short-term objective include:
- chart 5-year timeline of objectives and activities in developing this research tool
- get feedback on timeline from research partners
- identify a member of the BYU research cluster interested in collaborating on this measurement work
- consult with authors of the CLASS instrument about our long-term plan
- identify funding needed at different stages of the projected timeline
- list products and associated target deadlines
- define the contours of the user’s manual (e.g., information, purposes, organization)
Citizenship Project
Dept. of Teacher Education

Background

I highly value my relationships with researchers across the country, and internationally. I have worked at different institutions before coming to BYU, and we continue publishing together. I currently review for different journals and attend research conferences to strengthen these networks. I have served on planning committees for national and international meetings, including a summit on immigration with the American Psychological Association and a bi-national research meeting in Mexico City.

I enjoy collegial relationships within my department as well. I enjoy participating in programmatic discussions and decision-making, as well as more scholarly deliberations. I especially enjoy engaging with colleagues invested in school and classroom improvement research—those committed to working closely with teachers and other practitioners to address problems of educational practice through rigorous research designs. This year I participated in the Teacher Education Research Seminar (TERS), as well as the Associates Program which brings BYU faculty and school personnel together on a bi-monthly basis to discuss common readings and their relation to education practice.

My strongest professional commitment is to improve learning opportunities for underperforming racial and ethnic minority children in the early grades. I have realized over and again in recent years that this requires intimate and strategic partnering between university researchers and school practitioners. I have also realized that bona fide research partnerships are rare and difficult to develop. Researchers and practitioners tend to operate in separate universes with very different demands. This is ironic because our ultimate objectives are highly compatible (in most cases): improve opportunities and results for kids.

At a national level, increasing attention and corollary funding is given to conducting rigorous research within school-university partnerships. Producing generalizable knowledge and addressing local educational problems are being seen more and more as mutually reinforcing objectives. The federal government and some foundations are releasing more and more RFPs that address knowledge-use for student performance improvement through collaborative inquiry (between researchers and practitioners).

Short-Term Goal

BYU’s McKay School and the public school partnership within the Center for the Improvement of Teacher Education and Schooling (CITES) is very well positioned to become not only a player but a leader in this new way of conceiving research and development activities. My goal over the next few months is to deepen the understanding and commitment of research partnership activities within CITES leadership. In September I will present to the CITES professional development council on the potential for research partnership initiatives within the McKay School. I will address infrastructural changes needed within BYU to become an active leader nationally. I will argue that these changes will provide meaningful and sustainable opportunities for more scholarly productivity and research-driven problem solving in local schools. I will make the case for a new phase in BYU public school partnerships.

Strategies I will employ to meet this short-term goal include:

- Emphasize past accomplishments within the current infrastructure of CITES and the BYU public school partnership.
- Identify external funding opportunities for research partnerships.
- Explain the positive attention a bona fide research partnership will give to BYU.
- Emphasize new and exciting models for research partnerships in education (i.e., SERP)
  - Partnership activities with intense focus on defining and solving problems of practice
  - Validation of mutual expertise (researchers and practitioners)
  - Leadership of research partnership within the school districts
  - Equal power sharing
  - Publish “use-inspired” research to build on extant theory and evidence
Introduction

Design-based research (DBR)—encapsulating a family of research approaches in education referred to as “design experiments”, “engineering research”, “formative experiments”, and “design research”—has developed over the past 20 or so years to provide evidence- and theory-based solutions to problems of educational practice. These practices primarily address ways of improving learning environments, through instructional and technological innovations in a variety of settings. DBR was developed, and continues to develop, to offer an epistemological middle ground between traditional interpretive and positivist approaches in educational research. Though driven by pragmatic sensibilities, issues of methodological rigor, interpretation, contextual relevance, and scaling (i.e., applying evidence-based principles across settings) are at the heart of DBR applications and deliberations.

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In the spirit of iterative design, students will develop their own DBR projects in this course. This process will help you to appreciate the challenges and opportunities unique to DBR. Namely, students will be expected to understand a) the complexity of educational practice and, thus, the difficulty inherent in studying variables of interest; b) the importance of individual and contextual differences in instructional and technological innovations; c) how to identify, link, and refine theoretical claims to innovations; d) how to partner with practitioners and other stakeholders in DBR projects; and e) how to work in research teams.
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Course Reading and Required Texts

As shown in the course schedule below, most of the assigned readings come from peer-reviewed journals. We draw heavily from three special issues on DBR: *Educational Researcher, 32*(1); *Journal of the Learning Sciences, 13*(1); and *Educational Psychologist, 39*(4). All articles will be made available in pdf format on the BYU HBLL Course Reserve online.

We also draw from two texts, listed below. You are required to purchase both of them.


Prerequisites

Prior to taking this course, students must complete at least one course in quantitative or qualitative research design and one course in instructional design, preferably IPT 564.

Class Procedures

All readings should be completed before we meet in class. Readings total 30 to 60 pages per week, and are meant to complement each other. The topics assigned are designed to build sequentially, so that you have a sense of how your understanding of the material is developing. We start by couching DBR in terms of traditional research in education designed to improve practice, principally through instructional and technological innovations. Then we address the tenets and contours of DBR as a whole, followed by focused discussion, week-by-week, related to specific topics in more depth. We will read an assortment of DBR studies meant to illustrate these topics. Whereas I draw on DBR examples from different fields (e.g., literacy, science education, educational technology), most focus on innovations in K-12 classroom settings. We end the course by imagining future possibilities for DBR, primarily issues related to scalability of instructional and technological innovations to enhance learning opportunities.
Attendance and participation are crucial to your understanding of the content and, thus, your grade. Each week we will discuss assigned topics. Students are encouraged to come with questions that emerge from the readings. We will draw on your Digital Dialog responses as well as updates related to your cumulative DBR project in class discussion. Progress on your DBR project will be iterative. You will be expected to make substantive progress on your project in relation to weekly topics. That is, it will be graded at key intervals to assess ongoing progress.

Assignments

The course includes two assignments: Digital Dialog reflections and your DBR project. The purpose of these assignments is to deepen your understanding of corresponding topics, and to find maximum utility in the assigned readings and related course discussions.

Digital Dialog Reflections

Each week, prompts will be posted on Leaning Suite in relation to the assigned readings. The purpose of these prompts (some of which will be provided by the students) is for us to engage weekly topics in deeper, more personal ways. I am especially interested in how weekly readings are informing your DBR projects. Digital Dialog reflections will be formatted to be highly interactive, so that you are responding not only to the prompts but also to your colleagues and peers. Each week your post will be graded based on the below rubric.

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>Mid</th>
<th>High</th>
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<tbody>
<tr>
<td><strong>Understanding of Readings</strong></td>
<td>References to readings are casual and uninteresting. Does not appear to understand their purpose and main arguments.</td>
<td>References to course readings are moderately meaningful and insightful. Main arguments of readings are addressed, but not deeply engaged.</td>
<td>Makes meaningful references to readings. It provides insights related to authors’ main arguments and analyses.</td>
</tr>
<tr>
<td><strong>Personal Application</strong></td>
<td>Does not connect readings with his/her own research. Reference to the DBR project for this course is perfunctory.</td>
<td>Connections with their own research agenda are somewhat meaningful. Reference to the DBR course project is somewhat forced.</td>
<td>Makes meaningful connections with past, present, or future research initiatives s/he was/is/will be involved in, including the DBR project for this class.</td>
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<tr>
<td><strong>Addressing Colleagues</strong></td>
<td>References to colleagues and their work are general, brief, and/or not useful. Disagreements are rude and/or superficial.</td>
<td>Makes a modest effort to engage colleagues in discussion related to this week’s content. Disagreement is avoided or a bit edgy.</td>
<td>Acknowledges and builds of specific insights from colleagues. Disagreements are kind yet substantive.</td>
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</table>
DBR Project

You are expected to identify a problem of practice, and plan a DBR study intended to shed light on that problem—to provide insight concerning a solution. It should be a practical problem with which you already have experience, as a practitioner, consultant, analyst, designer, evaluator, or another capacity. Most projects will address instructional and/or technological innovations of some kind or another, but I am open to other ideas as well. Your proposal should cite and build on an extensive review of existing research literature, as well as current theoretical propositions. This assignment is meant to be useful to you and your professional interests and commitments. The more knowledge and experience you have with regard to the problem identified, the better.

Your DBR plan will be graded at the middle and at the end of the semester, in terms of how well it addresses the components discussed in class:

- **Problem Identification** – should be clear, tractable, and grounded in extant research
- **Collaborative Inquiry** – clear and feasible plan for joint collaboration with practitioners, users, implementers, and/or others
- **Iterative Study Cycles** – provide logical sequences and enough time for implementation, observation, analysis, and revisions; as many cycles as needed, and justifications for each
- **Contextual Analysis** – address how the intervention or planned solution accounts for contextual variance, including the roles of individual characteristics and setting attributes
- **Methods** – clear and concise alignment between theoretical claims under scrutiny, data gathering, measurement, and analytic plans, for all study cycles. In many cases this includes weaving inductive and deductive analyses. Methods should account for this.
- **Theory Contribution** – how study intends to inform fine theoretical propositions
- **Practice Contribution** – how study intends to inform practice improvements, using results to craft instructional and/or technological principles.
- **Scaling Implications** – suggestions for shifting from a small to larger development study, an efficacy trial, or some combination of the two.

Grading

Again, attendance and participation are critical in this class. Much of what you will learn—the dispositions and habits of mind—you will develop toward DBR and innovation work more broadly will depend on your and your colleagues’ commitment to be involved. You should come to class with questions, challenge authors’ assertions, and question your professor regularly. This simply is not possible if you do not come to and participate actively in class.

The grade schedule below reflects these values. If you engage the readings meaningfully, come to class, value our discussions, and voice your views, you should easily receive an A. By the end of the semester your grade on the final DBR project should not be a surprise. I will be giving you regular feedback on the project in and out of class. You should expect the same from your colleagues, and you should plan to give them ongoing feedback to their projects as well.
<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points Possible</th>
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<tbody>
<tr>
<td>Attendance/Participation</td>
<td>50</td>
</tr>
<tr>
<td>Digital Dialog Posts (10 total)</td>
<td>100</td>
</tr>
<tr>
<td>Mid-term DBR Project Review</td>
<td>50</td>
</tr>
<tr>
<td>Final DBR Project Proposal</td>
<td>100</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>300</strong></td>
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</table>

## Scheduled Topics and Readings

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
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<tbody>
<tr>
<td>1</td>
<td>Sept 6th</td>
<td>Research for Practice Improvement</td>
<td>Bransford, Pellegrino, Donovan (1999) Ch. 1 &amp; 4</td>
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<td></td>
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<td>Bryk (2009)</td>
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<td>Burkhardt &amp; Schoenfeld (2003)</td>
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<td>Review ppt slides: IES funding and goal structure</td>
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<td>2</td>
<td>Sept 13th</td>
<td>Epistemological Contentions</td>
<td>Feuer, Towne &amp; Shavelson (2002a, 2002b)</td>
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<td>Pellegrino &amp; Goldman (2002)</td>
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<td>Berliner (2002)</td>
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<td>Erickson &amp; Gutierrez (2002)</td>
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<td>3</td>
<td>Sept 20th</td>
<td>Design Research and New Space</td>
<td>Brown (1992)</td>
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<td>The Design-Based Research Collective (2003)</td>
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<td>van der Akker et al. (2006) Part 1</td>
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<td>Shavelson et al. (2003)</td>
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<td>Ford &amp; Wargo (2007)</td>
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<td>Cobb, McClain et al. (2003)</td>
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<td>Nelson et al. (2005)</td>
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<td>9</td>
<td>Nov 1st</td>
<td>Contextual Analysis</td>
<td>Tabak (2004)</td>
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<td>Goldenberg &amp; Gallimore (1991)</td>
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<td>Nov 8th</td>
<td>Methodologies</td>
<td>Hoadley (2004)</td>
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<td>Zhang et al. (2009)</td>
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<td>Sandoval (2004)</td>
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<td>12</td>
<td>Nov 22nd</td>
<td>Practice Contributions</td>
<td>Reinking (2010)</td>
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<td>Burkhardt (ch. 6 in van der Akker et al., 2006)</td>
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<tr>
<td>13</td>
<td>Dec 6th</td>
<td>Scaling Up DBR</td>
<td>Bryk, Gomez &amp; Grunow (2010)</td>
</tr>
</tbody>
</table>
Reference List


Dede, C. (2004). If design-based research is the answer, what is the question? The Journal of the Learning Sciences, 13(1), 105-114.


Reinking, D. (2010). *Beyond the laboratory and lens: New metaphors for literacy research.* Presidential address given at the annual meeting for the Literacy Research Association in Fort Worth, TX.


