

## GLOBALIZATION AND COMPARATIVE EDUCATION RESEARCH: MISCONCEPTIONS AND APPLICATIONS OF NEO-INSTITUTIONAL THEORY

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### ABSTRACT

As globalization studies have become central to comparative education research, neo-institutional theory has become the focus of many debates among comparative education researchers investigating the effects of globalization on education. Yet, in spite of this focus, many comparative education researchers have difficulty interpreting neo-institutional theory and how it frames comparative education research. In particular, misconceptions persist related to which strand of neo-institutional theory is the most relevant to comparative education research, and whether or not neo-institutional theory advocates for the homogenization of education and society worldwide. This article addresses these misconceptions by explaining the theory in relation to comparative education research using a specific empirical case as an example. The documented theoretical and methodological diversity within the field of comparative education supports the assertion that neo-institutional theory provides a productive framework for understanding and interpreting comparative education phenomena, but that complementary approaches and methods are useful as well.

**Key words:** *globalization, neo-institutional theory, comparative education research, Saudi Arabia, Tatweer Project, information and community technology.*

### RESUMEN

La teoría neo-institucionalista se ha ubicado en el centro de los debates académicos debido al avance y proliferación de los estudios en educación comparada que sitúan los análisis en el marco del proceso de globalización. Sin embargo, a pesar de su relevancia para la educación comparada, la teoría neo-institucionalista sigue generando incertidumbre en cuanto a su empleo e interpretación en la investigación educativa comparada. Parte de esta incertidumbre proviene de la malinterpretación de sus principios, variantes y de su capacidad explicativa. Además, aún persisten varios malentendidos sobre el neo-institucionalismo como por ejemplo, la creencia que sostiene que la versión conocida como la “cultura global” es la única variante del neo-institucionalismo relevante a la investigación educativa comparada. Otra suposición errónea es la que considera que la homogeneización cultural global es uno de los objetivos avanzados por los investigadores que aplican el marco teórico neo-institucional para explicar los fenómenos educativos comparados. Este artículo tiene como propósito abordar esos malentendidos a través de un caso de estudio que utilizaremos como ejemplo. El mismo nos permitirá no sólo clarificar los errores sobre la teoría neo-institucionalista sino también demostrar una de las tantas aplicaciones posibles a la investigación comparada en educación. Los resultados nos permiten sostener que las distintas variantes del marco teórico neo-institucionalista son útiles como

acercamiento a la problemática de la educación comparada. De la misma forma también dan cuenta de la necesidad de utilizar métodos y formas de aproximación al conocimiento en forma complementaria. La probada riqueza y diversidad teórica y metodológica del neo-institucionalismo en el campo de la educación comparada asevera fehacientemente que el neo-institucionalismo nos provee de un marco teórico productivo para el entendimiento e interpretación de los fenómenos educativos comparados.

**Palabras clave:** *globalización, teoría neo-institucionalista, investigación en educación comparada, Arabia Saudita, Proyecto Tatweer, información y comunidad tecnológica.*

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## INTRODUCTION

Many globalization theories provide comparative explanations for why educational systems develop, expand, and change worldwide (Burbules & Torres, 2000; Spring, 2008; Stromquist & Monkman, 2000). Some focus on power, dominance, dependency, and conflict over scarce resources and opportunities (Arnove, 1980; Apple, 2005; Brown & Lauder, 2006; Carnoy, 1974; Olssen, 2004; Wallerstein, 1984, 2004). Others look more closely at functional processes of change through implicit and explicit mimicry, especially of educational policies and structures across educational systems worldwide (Anderson-Levitt, 2003; Hayhoe & Pan, 2001; Schriewer & Martinez, 2004). These globalization theories are both more and less focused on culture and context, and they span both the macro and the micro-levels of theoretical analysis. In comparative education research there is increasingly a dominant emphasis on critical and post-modern theories to explain global educational phenomena (e.g., Arnove & Torres, 1999; Burbules & Torres, 2000; Cook, Hite, & Epstein, 2004; Crossley, 2000; Marginson & Mollis, 2001; Paulston, 2000). Yet one theoretical perspective has proven to be helpful in framing empirical analyses of global educational legitimization, expansion and change. This perspective is a new or neo-institutional approach and is different from other globalization theories both because of its explanatory scope and disciplinary range.

Even though recognition of the impact of comparative education research on neo-institutional theory (and vice versa) has only recently been discussed in the literature (Baker & Wiseman, 2006; Meyer & Rowan, 2006), neo-institutional approaches to empirically comparative education research arose in the 1970s. Since then there have been many attempts to anthologize theoretical and empirical analyses of education and society using neo-institutional theory, which have attempted to elucidate the application of comparative education research to specific educational policies and practices worldwide (Fuller & Rubinson, 1992; Krücken & Drori, 2009; Meyer & Rowan, 2006; Powell & DiMaggio, 1991). A particular strength of neo-institutional theory in comparative education research are empirical analyses and explanations of global expansion and legitimization of educational structures, policies, and expectations (Ramirez & Meyer, 1981; Wiseman & Baker, 2006; Astiz, 2006a). However, in spite of the uniqueness of the neo-institutional approach, critics and comparative education researchers alike continue to ask how this theory accounts for divergence, resistance and coercion in educational system development, institutional expansion and organizational change.

In fact, in spite of the plethora of comparative education research and other sociological work framed by institutional perspectives (Baker & LeTendre, 2005; Meyer & Rowan, 2006), some misinterpretations of its principles, variations, and explanatory power persist (Astiz, 2011; Wiseman, Astiz, & Baker, 2013). Building on previous scholarship (e.g., Ramirez, 2003), this article addresses these misconceptions by highlighting the origins and applicability of methodologies in comparative education research framed by neo-institutional theory. This review also purposefully examines an empirical comparative education research case as an example of the theory's relevance to and potential explanatory power for micro- as well as macro-level institutional phenomena.

## COMPARING OLD AND NEW FRAMEWORKS

Making meaning out of complex, contextualized, and chaotic global educational phenomena is fundamental to empirical comparative education research, even though there is sometimes a need to recognize that the complexity or chaos of a particular phenomenon itself may be the finding of most value (Lechner & Boli, 2005). As such, this review attempts to avoid some inherent pitfalls

in comparative education research. For example, there is a tendency in comparative education research to romanticize the “other”, especially when examining unique cultures and situations (Apple, Au, & Gandin, 2011). There is a penchant among some comparative education scholars to approach globalization from more overtly critical and post-modern perspectives, which often de-emphasize or abandon the search for shared or legitimized structures and patterns (e.g., Paulston, 2000, 2009). Yet, all of these tendencies suggest the continued need to understand processes of institutionalization of educational structures, expectations, and outcomes; especially the ways that culture contextualizes and influences them. Regardless of some comparative education researchers’ ideological agendas, institutionalization and shared norms and expectations about education worldwide is empirically undeniable (Marginson & Mollis, 2001).

Theories that directly address the phenomenon of educational institutionalization have an obvious comparative advantage when processes of institutionalization are in question. Yet, there is some confusion among comparative education scholars about how institutional theories frame comparative education research. Tolbert and Zucker (1994, p.1) rather presciently observed that “ironically...the institutional approach is not highly institutionalized.” Given the multiple variations of neo-institutional theory published in the theoretical and research literature across multiple social science disciplines (Tolbert & Zucker, 1996), it is difficult to point to just one institutional perspective relevant to comparative education research (Scott, 2005). Given this variation in possible institutional approaches, it is no wonder that questions have arisen about how neo-institutional theory is applied to comparative education research. While other work has elucidated the variations in political and sociological neo-institutionalism (Jepperson, 2002; Lecours, 2005), few of researchers either critiquing or engaging neo-institutional theory in comparative education research recognize the long theoretical tradition it comes from.

As the name “neo-institutional” suggests, there is an “old” institutionalism as well, which is attributed to Philip Selznick (1957). Old institutionalism is much more political and power-oriented than new or neo-institutionalism, but there are significant overlaps nonetheless (Selznick, 1996). Because many of the globalization theories applied in comparative education research adopt a critical or conflict orientation (Arnové & Torres, 1999), it is useful for comparative purposes to begin by highlighting how neo-institutional theory, often referred to (or known) as world society, differs from the more power-oriented “old” institutionalism. Because the neo-institutional approach usually advanced in comparative educational research does not emphasize conflict and power when explaining how educational systems, policies, and practices change, misunderstandings about the theory and of those who use it to frame their research persist. Such is the misinterpretation that some critical approaches have claimed that either the theory or researchers’ using it endorse power imbalances and neoliberal agendas. Yet this misconception ignores the ways that old and new institutionalism overlap, and consequently how neo-institutional theory complements and contextualizes rather than contradicts the more critical and power-oriented globalization theories that dominate comparative education scholarship.

Neo-institutional theory as it has been applied for the most part to comparative education research is distinctive from more conflict or power-oriented approaches in that it downplays conflicts of interest in educational environments and outcomes and instead focuses on irrationality in macro-level, non-local sectors, institutions, and environments (Schofer, Hironaka, Frank, & Longhofer, 2012). This is a unique and potentially useful framework in comparative education research because much of the influence and action that scripts national policies and local practices is found in the transnational spaces where social, political, and economic ideologies disseminate worldwide through development organizations and multilateral agendas. A brief explanation of these points, which were originally summarized by Powell and DiMaggio (1991), suggests that neo-institutional theory is a fruitful approach and complementary to the

historically dominant conflict and power-oriented perspectives (Wiseman & Baker, 2006, Astiz, 2011).

First of all, *neo-institutional frameworks deemphasize conflicts of interest* within and between organizations, but emphasize how organizations respond to conflicts “by developing highly elaborate administrative structures” (Powell & DiMaggio, 1991, pp.12-13). In other words, neo-institutional approaches to comparative education research emphasize the impact of legitimacy-seeking and shared expectations much more than they emphasize vested interests in political tradeoffs and alliances (Powell & DiMaggio, 1991, p.13). In this respect, neo-institutional theory provides a framework for understanding the enactment of seemingly irrational decisions and structures that more overt critical and post-modern perspectives repetitively explain as power. Neo-institutional analyses emphasize “the unreflective, routine, taken-for-granted nature of most human behavior” (p.13) and help comparativists understand interests and actors as themselves constituted by institutions and, more importantly, culture.

*Neo-institutionalism locates irrationality in the formal structure of education itself* rather than in the outcomes of educational systems and schools. For example, there is a significant difference between girls in gender-segregated societies choosing to pursue higher levels of educational attainment and achievement, on the one hand, and the institutionalized sexism that may characterize formal education in those same communities on the other (Maslak, 2007). In other words, the choices that female students and their families make are bounded by the options available in each communities’ culture. Since schools are institutionalized loci of both locally- and globally-legitimized culture, neo-institutional frameworks help comparative education researchers locate the irrationality in the educational structure that both limits and expands opportunities for girls, often simultaneously (Wiseman, Baker, Riegle-Crumb, & Ramirez, 2009). So, the conceptual advantage that neo-institutional theory offers is to be able to see the potential contradictions in culture and context in the educational systems rather than in rationally-bounded actions.

*Neo-institutionalism focuses on nonlocal environments*, “either organizational sectors or fields roughly coterminous with the boundaries of industries, professions, or national societies” (Powell & DiMaggio, 1991, p.13). In other words, local environments are influential more through the ways they penetrate or contextualize educational organizations like schools, policy organizations and non-governmental organizations rather than through direct influence on students, teachers, and parents. Neo-institutional frameworks for comparative education research emphasize how the process of institutionalization reduces variation within educational organizations and across boundaries, although enacted homogenization is neither possible nor promoted (Baker & LeTendre, 2005). Instead, variation in educational expectations, norms, practices and structures is surprisingly muted, which provides organizational stability while also allowing for both micro-level variation within the organizations and organic cross-organizational isomorphism.

*Neo-institutionalism suggests that institutions are macrolevel abstractions*. In this sense, education as an institution can be characterized as rationalized and impersonal prescriptions, which are independent of any particular entity to which moral allegiance might be owed (Powell & DiMaggio, 1991). In other words, institutions are made of “taken-for-granted scripts, rules, and classifications” (p.14) comprised of whichever cultural norms and values are legitimized in a particular community, whether that be a local school’s neighborhood or a regional bloc of affiliated nations. In this way, educational systems in highly non-Western communities (e.g., Saudi Arabia) can align their educational system’s structure and policies with a Western model while also preserving significant elements of their traditional culture in those same systems (e.g., gender separate schooling in Saudi Arabia).

These unique elements of neo-institutional theory as applied to comparative education research, however, are not indications that neo-institutional theory ignores the relevance or significance of power and conflict in global educational phenomena. On the contrary, neo-institutional theory broadly speaking provides a framework for recognizing and examining the wider spectrum of factors and impacts on education worldwide. In comparative education research, as in every field, there is no one theoretical approach that explains all phenomena. As such, there is also significant overlap with neo-institutional theory's counterpart, "old" institutionalism.

*Both old and new institutionalisms assert that institutionalization is a process*, which makes schools around the world less institutionally rational by limiting the options they can pursue either as organizations or as individuals and groups within schools (i.e., administrators, teachers, classes, students). In other words, "bounded rationality" is an important part of the globalization process (James & Lodge, 2003; Jones, 1999), and can explain some of the patterns in educational development, expansion, and change that comparative education researchers investigate worldwide.

For example, classroom teachers, school administrators, and ministry-level policymakers frequently operate with the same mental model that assumes equal treatment and activity is appropriate for students from a diverse set of backgrounds and widely varying communities. This is evidenced in the curricula that local and national experts prepare and policymakers promote as well as in the policies for equal treatment within schools that are established and enforced by national and local laws (Benavot, 1992). Yet, the fact remains that students have many different learning styles, preparation and ability levels, and that the environment for schooling varies widely both within and between educational systems. It is also evident that the access, opportunities, and outcomes of education remain unequal worldwide in spite of the legitimized and rationalized models of educational equality that characterize the formal structures and policies in national educational systems (Lewis & Lockheed, 2007).

*Both old and new institutionalisms emphasize the relationship between schools and their environments* to reveal aspects of reality that are inconsistent with schools' and educational systems' formal accounts. One example of this is the fact that formal education operates within a context of violent conflict in many parts of the world. From post-conflict communities in the Sudan and Liberia to active conflicts in Iraq and Afghanistan, schools are expected to provide stability and security to students, teachers, and communities (Bredlid, 2010). Although there are often serious disagreements about which ideological tradition will be the one to provide education in conflict and post-conflict community, multinational organizations and governments often do so using standardized curricula on math, science, language and other subjects, which often do not address or even specifically ignore the daily reality of violent conflict in the lives of students, teachers and the community. The formal account of education in conflict zones is divorced from the reality, yet age-graded structure, teacher-centered pedagogy, and standardized curriculum are nonetheless implemented day after day by multilateral agencies as well as local non-governmental organizations and stakeholders operating in conflict zones.

*Both old and new institutionalisms stress the role of culture* in shaping organizational reality within schools and educational systems worldwide. Culture is not just what students and teachers bring with them into schools; it is also the traditions, customs, rituals and expectations that policymakers and the public impose on schools. Culture is from within schools and educational systems as well as from without. There are organizational cultures that come to life within schools that are both unique to their local community and fully-aligned with the national education system. This is how the ritual use of centrally-legitimized textbooks is repeatedly implemented in classrooms and schools even when the content of the textbooks may be inappropriate or even invalid (Ramirez,

Bromley, & Russell, 2009). Textbooks used by many schools and communities in African countries, for example, are older textbooks donated by Western aid organizations. These textbooks often come from Europe or North America and represent the language, values, experiences, and ideas of privileged Westernized culture, yet the organizational culture in schools is such that these textbooks are not easily rejected. In fact, they are repeatedly adopted and sometimes used to varying degrees rather than discarded as irrelevant (Gross, 2011).

The characteristics of bounded rationality, environmental relativism, and the alignment of multiple cultures are all shared between old and new institutionalism and are representative of the kinds of challenges and problems that comparative education researchers investigate. Although neo-institutionalist approaches to comparative education have sometimes deemphasized political agendas and conflict-oriented explanations for educational phenomena, there are moments and contexts in which the impact of power differences and conflict are remarkably explanatory. This is especially true at educational origin or transition points, but these power-oriented perspectives are incomplete explanations for a significant amount of educational phenomena worldwide. Theories like neo-institutionalism provide comparative education researchers with a broader framework with which to explain global educational phenomena. One of the most recognized strands of neo-institutional theory is world culture, which suggests ways that bounded rationality and environmental relativism contribute to the global alignment of cultures and vice versa.

## **WORLD CULTURE AND THEORETICAL MISCONCEPTIONS**

World culture is a concept often used to frame comparative education phenomena and research questions because it is a useful framework for many of the global, institutional and systemic phenomena in which comparative education researchers are interested. Researchers investigating social change through the lens of neo-institutional theory have proposed that there is an historical rise and diffusion of a “Western cultural account”, which is a Durkheimian blend of “individualism, rationalism, and evolutionism” that has gained legitimacy worldwide through many different mechanisms of diffusion (Powell & DiMaggio, 1991, p.24; Jepperson & Meyer, 1991).

Some critics claim that neo-institutional approaches to comparative education have taken a uniquely American perspective, which they assert creates an exceptionalism to understanding how legitimacies develop and become shared worldwide and implies a neo-liberal bias among comparative education researchers who use a neo-institutional framework (Schriewer, 2012). While much of the discussion and criticism of “world culture theory” focus on conceptualizations originating with the American sociologist, John W. Meyer, and his colleagues, there are many other strands of neo-institutional theory for comparative education research worldwide. For example, much of the convergence-related research is of a decidedly European origin. Those who hail from European backgrounds frequently use neo-institutional frameworks based in political science and economics to investigate the “convergence” of educational policy across communities, nations and systems to an extent that “American” comparative education researchers rarely do (e.g., Bennet, 1991; Bleiklie, 2001; Bush & Jörgens, 2005; Drezner, 2005; Green, Wolf, & Leney, 1999; Heichel, Pape, & Sommerer, 2005; Holzinger & Knill, 2005; Knill, 2005; Montanari, 2001; Seelinger, 1996).

While theoretical paradigms invoking world culture have been both used and misused in comparative education research and theoretical discussions, it is not the only strand of institutional theory applied to comparative education among scholars and comparativists worldwide. There is much theoretical and empirical work from a more European and disciplinary

perspective that comparatively investigates educational policy phenomena worldwide even though it is not often published in traditional comparative education journals (e.g., Martens, Rusconi, & Leuze, 2007; Martens, Nagel, Windzio, & Weymann, 2010). Researchers working in this vein often frame their research and investigations using new institutional theories, which differ from the World Culture branch by asserting that there are forces of “convergence” that bring policies in alignment or structural homogeneity in the fields of education, economics and politics across national boundaries and around the world. Research framed this way has identified internationalization and marketization as the two forces bringing educational agendas and the resultant policies together, and uses the examples of the Organisation for Economic Co-operation and Development (OECD), World Bank, and International Labour Organization (ILO) to illustrate this point (Astiz, 1999; 2006b; Jakobi, 2009; Leuze, Martens, & Rusconi, 2007).

In short, the misconception that neo-institutional perspectives in comparative education research are uniquely American largely ignores the wider comparative scholarship on education worldwide. This misconception suggests an ethical consideration for theoretical critiques in comparative education research. Should comparative education researchers be expected to accompany their research with value-laden recommendations to problems or damning rhetoric against educational policies and practices that some feel are unfair? Or is the goal of the comparative education researcher to use evidence to investigate phenomena in the most unbiased and transparent way possible?

To illustrate the conundrum of applying neo-institutional frameworks to comparative education research, the case of Saudi Arabia’s King Abdullah bin Abdulaziz Public Education Development Project (aka, the Tatweer Project) provides opportunities for analysis framed by neo-institutional theory. As the case of Saudi educational reform is approached, it should be noted that neo-institutional perspectives do not advocate for or against legitimized expectations, activities or norms. Neo-institutional theory is indeed a theory: it is a way to approach and explain social phenomena, and it always requires empirical evidence. Simply because a comparative education researcher investigates a phenomenon does not mean that the researcher advocates for or against that phenomenon. Identifying and examining the phenomenon does not necessarily constitute advocacy for or against it.

Many scientists may be able to diagnose and recommend ways to ameliorate or encourage social phenomena, but there are also those who investigate the phenomena simply as a way to understand it. In this vein, the following case is not meant to either support or to accuse the Saudi Ministry of Education for their successes or failures in integrating information and communication technology into schools. The point of the example below is to investigate and understand the phenomena, and in this case, present evidence of how a theoretical perspective shapes methodology and interpretation of data.

### **LINKING THEORY AND METHODOLOGY: A SAUDI EXAMPLE<sup>1</sup>**

The Tatweer Project example provides a case where neo-institutional theory can be applied to comparative education phenomena. In particular, it provides a case of comparative educational policy reform, agenda-driven educational change, the connection between educational theory and practice, and the overlapping contexts of educational and economic development in a non-Western system. It also is a case that includes policy development, educational planning, school

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<sup>1</sup> The authors sincerely thank Emily Anderson for providing the initial document research and policy information presented here.



effects assumptions, and a dramatic and sudden shift in leadership and its education policy agenda. Using this example, several of the key elements of neo-institutional theory can be explored.

Neo-institutional frameworks “view institutionalization as occurring at the sectoral or societal levels” rather than the individual or organization levels, and are “consequently interorganizational in locus” (Powell & DiMaggio, 1991, p.14). Examples of specific sectoral or societal level research questions framed by neo-institutional theory, which could be asked in reference to the Saudi case described here, include: Why was the Tatweer Project established? Or, why did the Tatweer Project adopt a strong information and community technology (ICT) focus in the early stages? One of the fundamental comparative education questions neo-institutional frameworks address is why educational structures and discourses become similar to other models and systems worldwide. Given the way that the Tatweer Smart Schools (TSS) model was developed and implemented using international models as templates, neo-institutional theory provides a framework for empirical research addressing this question.

Different methodologies are available to the comparative education researcher applying a neo-institutional framework. One method is a case study approach that uses both a historical policy analysis and a quantitative component (other combinations could be used as well). The latter might use data from existing large-scale datasets like those that Ministry of Educations collect or that are available from cross-national studies like TIMSS or PISA. A large-scale quantitative approach can show the link between the national project objectives and the cross-school trend data to empirically estimate the policy-to-practice fit while a policy analysis can examine the normative, policy goals, policy-making decisions, and implementation processes at the national level.

The Tatweer Project was developed as a five-year initiative (2007-2012) by the Ministry of Education (MOE) to accelerate reform efforts related to Saudi Arabia’s public schools. The Tatweer Project is illustrative of the long and contextualized development of education policy reform focused on ICT-based education in Saudi Arabia. In particular, the Tatweer Project example demonstrates how technology-oriented educational reforms have started and stopped in Saudi Arabia since the 1980s. An institutional approach might first identify the project objectives to establish the legitimized policy goals and then investigate the processes and lived experiences of these policies’ implementation. Historical and policy context is vital to the institutional approach because it both shapes and is shaped by legitimized norms and values for education in schools and systems. Given the successive waves of national plans and educational policies specifically emphasizing technology as early as the 1980s, an historical neo-institutional approach recognizes and investigates the contexts and rationales for technology use in Saudi schools. An examination of the history and educational technology policy development in Saudi Arabia illustrates this point.

The Fourth Plan for Educational Development (1985 – 1990) was the first national educational development plan in Saudi Arabia to specifically address the role and importance of technology in education. This plan established the General Administration for Educational Technology (GAET), which was tasked with overseeing the integration of technology in Saudi Arabia’s schools. As part of this effort, in 1988, the Ministry of Education established the Directorate General for Educational Technology (Jaino, 2007). Two administrative departments were created as part of the Directorate General: the Design Department and the Production Department. These administrative divisions were tasked with supplying schools with educational technology resources and aided the design and production of educational materials. The first of these schools, labeled Developed High Schools, incorporated 8 credit hours in the existing curriculum.

These credit hours were focused on computer use, programming, and information systems (Alsebil, 2004). The GAET-funded Developed High School program was abandoned in 1990 due to a lack of available technology resources, and the curriculum was replaced with a general computer class requirement. Yet, the GAET continued to support the integration of technology resources and curriculum in secondary schools and higher education (Alsebil, 2004).

The Fifth Plan for Educational Development (1990 – 1994) increased funding for public education in Saudi Arabia in response to an increase in the number of school-aged children in Saudi Arabia, which is a common phenomenon throughout the GCC. Funding for the Fifth Plan exceeded its original budget of \$40.8 billion by 18 percent (Janio, 2007). The Ministry of Education's rationale for increasing the funding for public education was that public schools were necessary to increase the human capital of the nation. The Sixth Plan for Educational Development (1995 – 2000) expanded the government's commitment to fund public education, but to also increase the use of technology to modernize curricula and teaching methods as part of the country's commitment to developing human capital nationwide (Jaino, 2007). Of particular interest is the Fifth Plan's emphasis on human capital. This is a Western development agency rationale that was popular with the World Bank and similar organizations during the 1980s and afterward (Heyneman, 2005). How this global discourse on human capital became the legitimized rationale for the technical use of ICT in Saudi schools is a phenomenon ripe for comparative education research, and illustrates a situation in which historical and policy analyses can be framed by neo-institutional theory.

Most recently, Saudi Arabia began a 5-year education reform initiative to transform public education. The King Abdullah bin Abdulaziz Public Education Development Project, also known as the "Tatweer" Project in Saudi Arabia, was charged by the king to establish a model for "inquiry-based, 21<sup>st</sup> century education" (Tatweer, 2008). The Tatweer Project leadership quickly decided that this reform initiative would begin with the creation of 50 pilot "smart schools" (25 male and 25 female) known as Tatweer Smart Schools (TSSs) across every region of Saudi Arabia. These TSSs were outfitted with the most advanced information and communication technology (ICT) tools for students, educators, and the administration of education. Major resources were dedicated to fully equipping these 50 pilot "smart" schools and developing a technology infrastructure linking among each of the 50 schools throughout the country as well as back to the Tatweer Project headquarters in Riyadh. TSSs were carefully monitored, and became a visible product in nationwide media and policy discussions of the high-profile Tatweer Project.

The Tatweer Project planning and development were also divided into four pillars of the initiative, which included (1) curriculum reform and development, (2) teacher training and development, (3) school environment and technology reform, and (4) extracurricular activity promotion and development. The Tatweer Smart Schools were described by policymakers in the Tatweer Project and Ministry of Education leadership as laboratories for the implementation and development of new resources, programs, curricula and training for academic and extracurricular learning and development (Tatweer, 2008). However, the primary objective of the Saudi Tatweer Project and the corresponding ICT integration in instruction was not just to increase students' access to ICT, but to use it as a means to transform the quality of teaching and learning in schools.

The TSS initiative was implemented as the signature element of the Tatweer Project to be (1) a real-world pilot of the programs and policies identified as a result of a comparative review of international experiences commissioned by the Tatweer Project leadership as well as (2) a basis for examining the appropriateness and impact that carefully-selected educational development actions could have on teaching and learning in Saudi Arabia's schools. Building on prior reform

initiatives in Saudi Arabia, the Tatweer Project aimed to institutionalize ICT resources at the classroom and school building-levels to create a new paradigm for teaching and learning in Saudi Arabia. Yet, the specific characteristics and contextual factors in Saudi Arabia were such that physical resources were more readily available than the human capacity to use ICT for instruction. As such, the Tatweer Smart Schools (TSSs) participating in the pilot were equipped with ICT resources including interactive white boards, digital cameras, LCD projectors, and laptops for every teacher and student. Infrastructural developments were made at each TSS site to provide wireless internet access and ongoing professional development for teachers.

Training for principals, teachers, and students, however, was not implemented prior to launching the newly-resourced TSSs nationwide in 2008. This mismatch between physical resource and human capacity laid the foundation for much internal conflict both within Tatweer and in the national discussion about educational quality and reform. To address this concern the Intel Teach program was introduced for teacher professional development in ICT-mediated instruction several months after the new school year began for the TSS schools, teachers, and students. As part of the pilot, teachers in TSSs participated in the Intel Teach “Getting Started” course. Instruction was delivered by CD-Rom as part of the Intel Teach program.

The “Getting Started” module focused on introducing classroom software productivity tools and student-centered approaches to learning (Intel, 2010), but actual professional development was for teachers primarily (not principals or students) and emphasized technical skills more than pedagogical applications of ICT. The program did incorporate some project-based pedagogical resources to assist teachers in developing learning activities using web-based resources in classroom instruction, but the training and monitoring of the practical pedagogical application was sparse and late. Preliminary analysis of the Tatweer Project’s impact on teaching and learning in its first full year of operation, supplemented by international education data, indicated only marginal increases in student achievement across Tatweer Smart Schools (Wiseman, Abdullah, & Anderson, 2010).

For many reasons both practical and political, King Abdullah made major changes to the Saudi Ministry of Education’s leadership in February 2009, which included the replacement of the Minister of Education, the appointment of a Vice-Minister of Education, and replacement of both Deputy Ministers of Education, which resulted in the appointment of the first woman to a Ministry leadership position as well. Because of the Tatweer Project’s close association with the Ministry of Education, a change in the Tatweer Project’s General Director was announced later in 2009 and in effect by 2010. With the sweeping changes in Ministry of Education and Tatweer Project leadership, the 50 pilot Tatweer Smart Schools became part of the old administration’s agenda, and as a result ICT-based education and the role of “smart” schools in the reform of Saudi education were subsequently de-emphasized as a tool for national educational reform in Saudi Arabia (although none of the TSSs were decommissioned).

The disconnect between the teaching and learning reform goals of the Tatweer Project and the mismatch in both resources and training are an interesting example of the irrationality located in the formal structure of education. The Tatweer policymakers were focused on the project’s goal, but moved ahead with implementation before establishing organizational and community legitimacy or capacity development. In particular, the material resources and infrastructure was fully developed before and without training teachers or preparing students for the change. Preliminary findings also indicated that the challenges of fully implementing a “smart” school program as part of the Tatweer Project’s national educational reform initiative in Saudi Arabia was intimately related to certain teacher, societal, and institutional factors. These factors are all contextualized by the unique social, political, economic and cultural histories of the Kingdom of

Saudi Arabia and the Arabian Gulf. They are also intricately tied to the global trends in social, political, economic and cultural development either by coercion, mimicry, or normative isomorphism.

Evidence suggests that the foundation of the Tatweer reform was grounded in rationalized and legitimized human capital benefits associated with ICT competency as a predictor of national development and global social and economic participation (Wiseman, Abdullah, & Anderson, 2010). The project vision at that time of its development was to create a world-class and self-sustaining knowledge workforce that can compete effectively at the global level (Tatweer, 2008). In the case of Saudi Arabia, the combination of traditional culture and rapid economic development is likely to limit the implementation of ICT- and inquiry-based instruction while facilitating widespread availability of ICT-resources within the large-scale reform context of the Project (Wiseman & Anderson, 2012).

Finally, a more quantitative and large-scale methodological approach takes advantage of existing data to estimate the effects of the TSSs on teaching and learning using information that policymakers and participants in the Tatweer Project may use to generalize findings or base further decisions on. For example, Tatweer Project assessments of the TSS framework provided a range of unique reference criteria and comparisons that Ministry of Education and Tatweer Project administration expected would be cultivated into widely relevant and applicable models for Saudi Arabia, the Arabian Gulf, and beyond (BouJaoude & Dagher, 2009).

The TSS pilot project, in particular, provided the basis for the items identified as necessary components of capacity building. These capacity building components were grounded in an evidence-based understanding of the potential impact and possible obstacles for educational development by creating an enabling environment with matching policies and frameworks. But, the availability of the data alone was not enough to provide an evidence-base for decision-making. Part of the challenge in Saudi Arabia, as in other developing systems, is that data is available, but often incomplete. Or, data is collected, but without planning for which information policymakers need. Finally, data may be available, but the capacity of Ministry of Education and Tatweer Project staff to analyze the data was lacking. So was the case with the Tatweer Project.

The approach summarized here has specifically looked for ways that models and scripts have developed based on global trends and international models, but what if the research questions had more to do with why there were certain obstacles or resistance to the TSS model development? Powell and DiMaggio (1991, p.28) stress that although, “rules and routines bring order and minimize uncertainty...the creation and implementation of institutional arrangements are rife with conflict, contradiction, and ambiguity.” Friedland and Alford (1991) assert that conflict is a result of institutional contradiction when different institutional orders or legitimacies contradict one another. As a the Saudi case framed using neo-institutional theory suggests, building a national infrastructure for educational assessment has been an important policy agenda item in Saudi Arabia for many years, and comparative education research could track both how large-scale data is used in Saudi Arabia as well as the development of the national infrastructure to provide reliable and valid national data.

Furthermore, as this example suggests, researchers applying institutional theory to empirical research are open to the fact that “power and interests have been slighted topics in institutional analysis” (DiMaggio & Powell, 1991, p.30). The reason why is that “the new institutionalism, as it has developed so far, is more applicable to the study of institutional form and functioning than to the equally important topics of institutional origins and transformations” (Brint & Karabel, 1991, p.338). In fact, it has been proposed that the “old” institutionalism is more applicable to

institutional origins and transformations, while neo-institutionalism is more applicable to institutional forms and functioning.

The Saudi example provides many ways to think about how empirical approaches can answer questions about the globalization of shared norms, expectations, activities and behaviors. But, the Saudi example also provides a window into the role that divergence, resistance, mimicry and coercion play in establishing, legitimizing, implementing and institutionalizing ICT-based instruction in Saudi Arabia as well as the broader Arabian Gulf. The establishment of European colonial interests in the Gulf, as in much of the world, divided the region along lines of conquest rather than along ethnic, tribal or other traditional divisions (Vassiliev, 2000). And, in using these more artificial and imposed boundaries of power, the indigenous Gulf people-groups came into conflict with each other rather than the European colonists. With this fabric of power and conflict-driven history as a backdrop, Saudi Arabia arose on the Arabian Peninsula as a dominant actor – both politically and socio-religiously – but in Saudi Arabia’s reliance on natural resources the Kingdom also continued its subordination to Western institutions and culture (Vassiliev, 2000).

Finally, this example using the Saudi Tatweer Project case demonstrates some of the variety and relevance of neo-institutional frameworks for comparative education research. But, it does not claim that neo-institutional theory is the only perspective on globalization that is relevant to comparative education research. What it does suggest, however, is that comparative education research needs a balance of theoretical perspectives beyond only power-oriented theories in order to help researchers as well as policymakers understand the educational phenomena occurring worldwide, within national educational systems, and in local schools and classrooms around the world.

### **CONCLUDING REMARKS: AN EMBRACE OF EMPIRICAL INQUIRY ON GLOBALIZATION AND EDUCATION**

Globalization is perhaps both one of the most important, most studied, and still most misunderstood phenomena in comparative education research. As a field of inquiry, however, it is important to widen the opportunity for empirical and theoretical inquiry rather than limit it. Scholarly debate is a principle that the intellectual academic community worldwide is built upon, and it always should be encouraged. Yet, persistent and purposeful misreading of social science research in comparative education threatens the intellectual and policy spaces where reasoned and empirical scholarly debate can take place. Misconceptions about the application and impact of neo-institutional theory in comparative education research do not move scholarly debates about globalization and contextualization in education forward. In fact, they accomplish the opposite.

Globalization is indeed still the “slouching rough beast” of comparative education research but it is also a dynamic and multifaceted process that cannot be explained monolithically within the narrow constructs of power and conflict, nor exclusively using agency and cultural relativism rationales (Astiz, Wiseman, & Baker, 2002). Globalization has many forms across many different institutions, but particular emphasis in education is on the transforming power of globalization both economically and institutionally. This does not suggest that the transformative power of globalization in education is without conflict or resistance. As Astiz, Wiseman, and Baker (2002, p.69) assert,

Both the expansion of education and the institutional development of modern school systems have occurred with considerable class, ethnic, and other political conflicts that have often led to variation across time and space.

Yet, globalization effects also are characterized by macrolevel abstractions, a process of institutionalization contextualized by relationships between schools and their non-local environments which frequently lead to surprisingly similar norms and structures in educational systems worldwide. The Saudi education examples illustrate how these characteristics empirically manifest themselves. The challenge then for comparative education researchers is to examine the evidence and balance the rhetoric so that globalization and its impact on education can be understood to the fullest extent possible.

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