Twice-Exceptionality in the Kingdom of Saudi Arabia: Policy Recommendations for Advances in Special Education

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Abstract
The adoption of the principle of Education for All has catalyzed major efforts in special education throughout the world, and the Kingdom of Saudi Arabia (KSA) has developed educational policies to meet the special education needs of students since the late 1960s. Despite these efforts, there is no current policy in the KSA that provides specific services for twice-exceptional (2E) students. This paper presents recommendations for implementing a policy for 2E students in the KSA using the conceptual framework for policy planning developed by the United Nations Educational, Scientific and Cultural Organization (Haddad, 1995). The general issue of twice-exceptionality is reviewed, and processes for policy development, practitioner training, service interventions, and evaluation procedures specific to the KSA are presented. In keeping with research from the United States, recommendations emphasize the importance of a multifaceted approach to identification and intervention with 2E students.

Keywords: *education policy development, gifted education, Response to Intervention, Saudi Arabia policy, special education, twice-exceptional students.*

Introduction
The current government of the Kingdom of Saudi Arabia (KSA) emphasizes the importance of education for all citizens without discrimination. In this respect, there have been significant developments toward modernizing education in this country during the past several decades. Educational policy in the KSA has advanced to the degree that a wide variety of disabilities are now acknowledged, and this country devotes considerable financial resources toward educational institutions and services (Aldabas, 2015; Murry & Alqahtani, 2015).

Concurrently with advances in laws that provide education for individuals with disability, there have been major developments in education for gifted and talented students, but to date, laws governing special education and gifted education are separate. Efforts to nurture and

educate gifted and talented individuals have progressed since the late 1980s and have expanded with the establishment of the King Abdul-Aziz and his Companions Foundation for Giftedness and Creativity (Mawhiba), which oversees the gifted and creative education program (Alamira, 2014; Mawhiba, 2017). The increased focus on creating effective education policies and services for both gifted and disabled individuals in the KSA is further supported by the Saudi Vision 2030, which brings to the forefront the importance of developing all the country's human potential. This vision demonstrates strong dedication to promoting a diverse economic and cultural environment and developing global citizens (Saudi Vision 2030, 2017). This support and dedication to nurturing all human potential creates a timely opportunity to develop effective services for twice-exceptional students (2E) in this country.

The issue of twice-exceptionality is an important consideration in modern education, which seeks to provide adequate services to all students without discrimination (Baum, 1984; Baldwin, Omdal, & Pereles, 2015b). Twice-exceptional students are unidentified and underrepresented in receiving the services and supports they need, and their achievements often fail to correspond with their capabilities (Baum, Cooper, & Neu, 2001; Krochak & Ryan, 2007). Some social and emotional issues, such as increased frustration, lowered self-esteem, and increased antisocial behaviors, can cause challenges later in life if left unaddressed in 2E students (King, 2005; Ronksley-Pavia, 2015). According to King (2005), if these students are provided extra support and encouragement, they will often persevere in the face of difficult tasks that might have otherwise elicited disruptive or distracting behavior.

Without a clear, direct federal policy specifying the definition, programs, and services that 2E students need, it is highly improbable that their special needs will be met. This holds true wherever clear and direct guidelines are lacking (Haddad, 1995). Because educational changes in the KSA have mirrored those in the United States (Murry & Alqahtani, 2015), this paper will review US history, policy, and programming as these relate to establishing successful services for 2E students in the KSA, followed by a presentation of 2E policy recommendations for the Kingdom.

The importance of this policy paper stems from the need for educators, administrators, policy makers, and parents, regardless of nationality, to have the necessary expertise and wisdom to guide 2E students through their developing years toward healthy and productive long-term lives. Efforts to establish clear policies and procedures related to twice-exceptionality will help those involved to provide appropriate academic guidance, social/emotional environments, and strategic interventions to help them maximize their potential to the fullest degree possible. The objective of this paper is to propose an initial policy regarding twice-exceptionality to the Ministry of Education in the KSA that will inform the process of implementing identification and intervention strategies for these students. Comprehensive recommendations to policy makers in the KSA are provided regarding a specific policy, the practical application of this policy, and its effective evaluation.

This policy proposal uses the conceptual framework for policy planning published by the United Nations Educational, Scientific, and Cultural Organization (Haddad, 1995), which includes the following components: (a) analysis of the existing situation, (b) the generation of policy options, (c) evaluation of policy options, (d) making the policy decision, (e) planning of policy implementation, (f) policy results assessment, (g) subsequent policy cycles. The first four components of this framework deal with policy making, the fifth with planning and implementation, and sixth and seventh with ongoing policy evaluation and adjustment. Furthermore, the recommendations made in this paper are based on careful consideration of the

critical role that policy intermediaries play in implementing educational policies (Lane & Hamann, 2003; Owens, 2014; Vandeyar, 2015).

Twice-Exceptionality

One issue of interest in the field of special/gifted education is how to address twice-exceptionality. Twice-exceptional students are defined as those who demonstrate a gift or talent in one or more areas and have a disability in another area (Davis, Rimm, & Siegle, 2014). Twice-exceptional students represent a growing portion of the overall student body in schools. Statistics show that 2 to 5% of gifted students have a disability and vice versa (Dix & Schafer, 1996; Nielsen, 2002; Whitmore, 1981).

The unique characteristics of twice-exceptionality create challenges in identifying the specific needs of these individuals. The disabilities and gifts that co-occur with twice-exceptionality can hide each other, called masking. Generally, researchers acknowledge that 2E students exhibit a discrepancy between their actual ability and their achievement, but the specific patterns exhibited among 2E individuals is so diverse that it is difficult to standardize an assessment process (Baum & Owen, 1988; Beckley, 1998; Krochak & Ryan, 2007; McCoach, Kehle, Bray, & Siegle, 2001; Ronksley-Pavia, 2015; Ruban & Ries, 2005). Ultimately, these students are viewed as being at twice the risk of failing to achieve their full potential. Members of this student population require specialized services and specific strategies to help them succeed. These may include providing them with the opportunity to participate in a special program that focuses on their giftedness as well as continuing to meet specific needs that are associated with one or more disabilities (King, 2005).

The Challenge of Twice-Exceptional Students

The masking and confounding effects of co-occurring giftedness and disability create a massive challenge to educational researchers and practitioners. Current research indicates that there are three groups of 2E students (Baum, 1988; Broody & Mills, 1997; Krochak & Ryan, 2007; McCoach et al., 2001). The first group of 2E includes those who have been recognized as being gifted but have mild disabilities that cause them to have difficulties in school. These students are typically viewed as underachievers because they do not perform in keeping with expectations for gifted students. Usually, individuals this group use compensation strategies to mask their disability, and they often complete their schoolwork within or near their grade level until they experience more difficult material later in school (Baum, 1988; Broody & Mills, 1997). These students could attain higher levels of academic achievement if properly identified as 2E students, but because they seem to be making acceptable progress, they are most often unrecognized.

The second 2E group involves students that have not been identified as having a gift or talent but are showing strong signs of a disability. Because of their disability, this group of students cannot attain appropriate level scores on intelligence tests and other assessments. Because their disability dominates (masking their ability), their full potential as students is often underestimated. Educators often have lower expectations of these students, and many students meet only these lowered expectations as a result (Broody & Mills, 1997; Baum, 2004; McCoach et al., 2001).

The third 2E group includes students who are not identified as either (gifted or disabled) because these two characteristics hide one another. Teachers often perceive these students as having 'average ability' which is what prevents them from getting evaluations and services for

either their disability or giftedness (Broody & Mills, 1997). The result is a particularly vulnerable population in as much as neither their giftedness nor their disabilities are identified or recognized, in which case no services are provided to them that might help them attain much greater achievements.

The numerous possible combinations of gifts and disabilities makes it difficult to establish clear definitions and identification processes that support appropriate educational practices and interventions for 2E students. The United States has made notable progress in raising and addressing the issue of twice-exceptionality, and the KSA is likely to benefit from developing a culturally sensitive 2E policy using practices in the US to guide the process. Because policies rely on clear definitions, a discussion of how best to define twice-exceptionality is an important first step.

Legal Definition of Twice-Exceptionality in the United States
Before we develop policy, we must adopt a clear legal definition that states who the policy will affect and exactly how it will affect them. However, defining 2E in legal terms is not an easy task. Vaughn (1989) stated that nowhere else have two populations suffered from more definitional problems than the populations of those known as learning disabled and those known as gifted.

It is well known that gifts and talents come in a broad spectrum, ranging from general to specific intellectual abilities across a wide variety of skill domains, such as cognitive, leadership, creativity, performing arts, and so on (Davis et al., 2014). Similarly, numerous disabilities exist that can co-occur with giftedness. In the US, the Individuals with Disabilities Education Improvement Act (IDEA) includes up to 13 different kinds of disabilities that are eligible to receive appropriate services (Individuals with Disabilities Education Improvement Act Regulations, 2006). The types of disabilities encompassed in IDEA include the following: learning disabilities; emotional disabilities; impairments that relate to hearing, vision, speech, or language; physical disabilities; sensory disabilities such as Auditory Processing Disorder, Autism, ADHD, and/or other health impairments (IDEA Regulations, 2006). The abundance of possible configurations of gifts and disabilities observed in 2E students creates a challenge for researchers in this field in that research about gifted students with one type of disability does not easily transfer to all other situations involving twice-exceptionality. Also, research focused on a specific disability potentially inadvertently leads researchers to overlook participating students who are 2E (Baldwin, Baum, Pereles, & Hughes, 2015a; Reis, Baum, & Burke, 2014).

The difficulties encountered so far in this area have not prevented researchers and professional organizations in the US from attempting to devise an official definition of twice-exceptionality. The most recent comprehensive definition of 2E resulted from a collaboration between the Council for Exceptional Children (CEC) and the National Twice-Exceptional Community of Practice (2eCoP), which comprises representatives from over 15 partner organizations and a variety of stakeholders who have the desire to help 2E students. The 2eCoP group has come up with a definition to help professionals meet the needs of 2E students. This definition states:

> Twice exceptional (2e) individuals evidence exceptional ability and disability, which results in a unique set of circumstances. Their exceptional ability may dominate, hiding their disability; their disability may dominate, hiding their exceptional ability; each may mask the other so that neither is recognized or addressed. 2e students, who may perform below, at, or above grade level, require

the following:
▪ Specialized methods of identification that consider the possible interaction of the exceptionalities.
▪ Enriched/advanced educational opportunities that develop the child's interests, gifts and talents while also meeting the child's learning needs.
▪ Simultaneous supports that ensure the child's academic success and social-emotional well-being, such as accommodations, therapeutic interventions, and specialized instruction.
Working successfully with this unique population requires specialized academic training and ongoing professional development (Baldwin et al., 2015a, p.212-2013).

Academic Services for 2E Students in the United States

Current research has generated information about instructional practices for providing quality services to 2E students to serve this population in schools. Best practices for working with 2E students emphasize following a problem-solving process that is collaborative with all key stakeholders (Baldwin et al., 2015b; McCoach et al., 2001; Omdal, 2015). This process includes defining the areas of need, collecting and analyzing data, implementing a development plan, and evaluating the progress (Omdal, 2015). Researchers emphasize using the strengths-based approach method, where efforts are concentrated mainly on students' strengths rather than their weaknesses (Baldwin et al., 2015a; Coleman & Gallagher, 2015; Collins, 2008; Jeweler, Barnes-Robinson, Shevitz, & Weinfeld, 2008; Yssel, Prater, & Smith, 2010).

An additional recommended method is the whole child approach, where each student is regarded as having a unique profile requiring a tailored set of evidence-based strategies reflecting their unique strengths and challenges (Campanelli, & Ericson, 2007). Educational strategies that include acceleration and enrichment strategies (Willard-Holt, Weber, Morrison, & Horgan, 2013), as well as individualized instruction and interventions coupled with comprehensive case management and social emotional support have been founded to effectively support the educational needs of 2E students in school settings (Montgomery County Public Schools, 2002).

Current Education Policies Relating to 2E in the USA

Since 1980s there have been several attempts by Congress to understand, define, and serve the 2E student population. Notably, the Jacob K. Javits Gifted and Talented Students Education Act (1988) spurred several research studies and projects to advance understanding the needs of 2E students (Foley-Nicpon, 2013). Following this, another monumental progressive education act on the part of the US Congress was the development of the Individuals with Disabilities Education Act (IDEA), which was further refined in 2004 to include federal recognition that gifted students with coexisting disabilities are to be allowed a free, appropriate education in the least restrictive environment (Baldwin et al., 2015a; Foley-Nicpon, Allmon, Sieck, & Stinson, 2011). The legal recognition of coexisting gifts and disabilities had major implications for 2E students; most significantly, this was the first ever inclusion of priority funding for students with disabilities that also present with gifts and talents (Baldwin et al., 2015b). Most recently, the establishment of 2eCoP has created a larger voice in helping to advocate and influence policy makers to create clear and direct policies regarding 2E students, starting with the development of a legal definition of twice-exceptionality based on expert consensus (Baldwin et al., 2015a).

Although these cornerstones of understanding and establishing a scientific base for twice-exceptionality have been accomplished in the US, there is still a significant challenge in implementation because the responsibility for details still rests with individual states, which are not consistent with definitions and identification processes. As a result, there are vast differences in the array of services available from one state to another. Variance in policy and practices across states also serves to complicate legal processes and case decisions related to twice-exceptionality (Foley-Nicpon et al., 2011).

Analysis of the Existing Situation in the Kingdom of Saudi Arabia

A summary of the history of education for students with special needs in the KSA illustrates how special education has evolved in this developing nation. The first Ministry of Education in the KSA was established in 1952, and in 1958, special education classes for the blind were implemented. In 1962, the Ministry of Education formed an additional division, the Administration for Special Education, which focused on improving learning for students with disabilities (Aldabas, 2015; Al-Kheraigi, 1989). The actions of this ministry were related to establishing rules and regulations that guaranteed rights for people with disabilities, as well as improving the quality of special education programs and the professionals administering the programs (Al-Mousa, 2010; Alquraini, 2010). During the 1960s, however, special education policies and programs in the KSA focused on physical disabilities (blindness and deafness). Special day schools were provided with those who qualified for services (Aldabas, 2015; Al-Kheraigi, 1989).

In 1971, intellectual disabilities were first considered for special education, and individuals with intellectual disabilities attended special day schools or residential school. Between 1960 and 2000, the KSA instituted numerous special day schools, residential schools, and full-time special education classrooms in public schools. During the 1990s, policy defined mild and moderate intellectual disability, Autism, and a more articulate range of hearing impairments (Aldabas, 2015).

In 1987, the KSA enacted the Legislation of Disability, which guaranteed equal rights to individuals with disabilities, and in 2000 the government enacted the Disability Code. These legislative actions specifically mention that people with disabilities have the right to access free appropriate educational services (Alquraini, 2010). In 2001, the KSA introduced its first legislation for students with disabilities, Law 224--*Regulations of Special Education Programs and Institutes* (RSEPI)*,* which was modeled after the United States' special education policies (Alquraini, 2010). This legislation is composed of many elements that support how to uphold the law, such as how to administer programs like prevention and intervention, evaluation, assessments, Individual Education Programs (IEPs), and training requirements for students with disabilities. The legislation has a natural, built-in, quality assurance that requires agencies to follow set regulations (The Document of Rules and Regulations for Special Education Institutes and Programs, 2002).

Since 2000, the KSA has continually added depth and complexity to how disabilities are defined and addressed. The special education system in the KSA currently recognizes disabilities as follows: moderate, profound, and severe disabilities including physical disabilities, deafness, blindness, intellectual disabilities, Autism, and multiple disabilities. Efforts have also included adding special education resource rooms in general education classrooms (Aldabas, 2015; Al-Kheraigi, 1989).

Special education for gifted and talented students in the KSA has developed concurrently with efforts to provide education for students with disabilities. Specific interest in education for gifted and talented students in the KSA was endorsed by the government in 1969 with "The Education Policy in the Kingdom" (decree No. 779 of 16-17 September 1969), which called attention to gifted and talented students. Article 57 of this decree states that a key goal of education in the KSA is "identifying gifted students, nurturing them, and providing varied resources and opportunities to develop their gifts within the framework of general programs, and through applying special programs (Ministry of Education, 1969, p. 16, as cited in Alqarni, 2010). Between 1969 and 1990 efforts to support gifted students mostly consisted of financial or material rewards for scholastic achievement, scholarships for advanced studies, or family gatherings for gifted students. The next major step in gifted education programming in the KSA was to establish objective, scientific methods for identifying and educating gifted and talented students (Alqarni, 2010).

Between 1990 and 1995 major efforts were made in the KSA to establish appropriate tools to identify and categorized gifted and talented students. The Saudi Arabian National Education Project modeled programs used in the United States and other developed countries in establishing testing and placement procedures for gifted students in several basic performance domains including science, technology, literature, and the arts. This project was also responsible for establishing two enrichment programs, one for science and one for math. The scientific processes and technologies established during this period served as the basis for implementing gifted student development programs through the Ministry of Education, The General Headquarters for Girls' Education, and the King Abdul-Aziz and his Companions Foundation for Giftedness and Creativity, which oversees the gifted and creative education program Mawhiba, established in 1999 (Almousa, 2010). The first authoritative activity that focused on providing special education for gifted and talented students occurred in the 1999/2000 school year, during which the Ministry of Education issued a directive for the education of gifted and talented male students; the same directorate for female students was issued the next year.

Shortly thereafter, the Ministry of Education fostered Section 4 (8)(5) of Law 224 (2001), which focuses on identifying and overseeing special education and addressing the needs of gifted and talented students. This legislation defines giftedness as an outstanding ability in one or more categories: intelligence, creative thinking, academic achievement, and special skills such as speech, poetry, art, sports, drama, and leadership. This document loosely indicates that, usually, the gifted student will be above average compared to their peer group (The Document of Rules and Regulations for Special Education Institutes and Programs, 2001; Disability Welfare System Law 224., 2002). Additionally, Section 4 (8) (5) requires specialized programs to be implemented for each student and focuses on gifted and talented students, overseeing the services that are provided to them (The Document of Rules and Regulations for Special Education Institutes and Programs, 2001; Disability Welfare System Law 224, 2002, Section 4(8)(2)). Although this document is a major step forward for gifted and talented programming in the KSA, further clarification related to possible coexisting disabilities is needed.

Special Education Processes in Saudi Arabia

Currently, the KSA provides a variety of special education services and settings for students with disabilities. One of the most prominent characteristics of the special education system in the KSA is the use of mainstreaming to address non-traditional categories of disability such as blindness, deafness, and intellectual disabilities (Al-Mousa, 2010; Bin Battal, 2016). The

following definition of mainstreaming was adopted to indicate that students with disabilities have the right to receive educational benefits in regular education schools: "Mainstreaming, operationally defined, means educating children with special educational needs in regular education schools, and providing them with special education services" (The Document of Rules and Regulations for Special Education Institutes and Programs, 2002, p.15).

The KSA implements partial and full mainstreaming to deliver special education services. Partial mainstreaming consists of self-contained classrooms in regular schools, and full mainstreaming is done through support programs added to regular school programs including resource rooms, itinerant teacher programs, and teacher-consultant programs. Mainstreaming programs in the KSA target two groups of students according to specific disabilities. Full mainstreaming efforts are directed at gifted, physically disabled, learning disabled, behaviorally disturbed, and emotionally disturbed students. This group of students attends regular schools, and supplementary mainstreaming programs provide needed services. Partial mainstreaming is used for students with blindness, deafness, intellectual disability, and autism, who are educated in self-contained classrooms or separate schools. There is currently strong interest in full mainstreaming for this second group of students (Bin Battal, 2016).

In terms of overall progress in special education efforts, the KSA currently acknowledges the rights of both gifted students and students with disabilities to obtain an appropriate education. However, there is still no recognition of the concept that students may be gifted and have a co-existing disability. No specific formal policy has yet been created that focuses on twice-exceptionality in the KSA.

According to Almousa (2003, 2005), there is a significant shortage of research, understanding, programs, and government support for 2E students in the KSA. This researcher has also found that in the KSA this group of students is neglected and overlooked (Almousa, 2005). Teachers know little about twice-exceptionality issue, and they do not have appropriate experience and training related to this issue. Currently, no services are provided specifically to help 2E students. This represents the need to establish a policy that ensures 2E students will obtain the services they need to achieve their full potential in schools in the KSA (Almousa, 2005).

The Policy Issue and Objectives

The policy issue is that 2E students in the KSA are not being identified, and there are no clear guidelines on how appropriately to challenge these students and meet their needs. The educational system in the KSA is not prepared to provide a consistent educational approach to these students. Consequently, teachers are not prepared to meet the needs of 2E students. The objective of the proposed policy is to provide early identification of 2E students, Individualized Education Plans (IEPs), and educational teams that can create and implement student plans that are consistent with their goals. Students will then have more opportunities to develop their strengths, to be challenged, and to experience the methods and strategies that are needed to address both their gifts and challenges.

Organizational and Political Context of the Issue

In the KSA policies are centralized, so the Ministry of Education makes policies related to all of education, distributes them to all districts, and mandates their implementation through the schools (Alamri, 2011; Alqarni, 2010; Alshaer, 2007). Therefore, issues in education must first be addressed with the Ministry of Education because this entity makes the official decisions

in developing all education policy. The Ministry of Education has already implemented policies that support a free appropriate education for all students, and a twice-exceptionality policy would help strengthen the purpose and intent of the Ministry. Both elements of the twice-exceptionality issue have been addressed in the KSA from an organizational and political perspective in that the KSA already has policies protecting students with disabilities and those who are gifted or talented. However, the policies are separate at this point. It is anticipated that stakeholders will readily accept a policy that acknowledges co-existing giftedness and disability, bridging the existing gap in services.

A data-based approach to recommending a 2E policy in the KSA will provide detailed information about twice-exceptionality as observed in the Kingdom and the steps involved in developing an effective policy. Key stakeholders, value issues, and guidelines regarding the key elements of the policy will be presented. Recommendations for policy dissemination and implementation will be provided including paths for effective communication, professional training needs, required educational support services, and evaluation processes. The policy will also communicate clear paths of authority and responsibility.

Recommendations for the Policy-Making Process

The successful development and implementation of a 2E policy in the KSA will require input and involvement from multiple stakeholders and intermediaries with authority and expertise in both education and the culture of Saudi Arabia. Government administrators, Ministry of Education representatives, university faculty, public school teachers, psychologists, and parents are some of persons that will be critical to the process. Furthermore, the KSA has devoted substantial time and financial resources to provide advanced studies to students in a wide range of disciplines. Retuning citizens who have attained doctoral degrees in special education and now are employed in universities will serve as a rich source of expertise.

The KSA has established policies that address giftedness and disabilities separately; however, there is currently no existing policy for twice-exceptionality. Research consistently supports the importance of involvement and buy-in among intermediaries in the process of implementing educational policy changes (Lane & Hamann, 2003; Owens, 2014; Vandeyar, 2015). Input from these stakeholders will provide comprehensive information about what needs to be included in the policy and asking for feedback from each of these groups will help identify what is working and what is not working with current practices. This approach will provide data-based direction to developing an initial policy in this country. Furthermore, the proposed process will help to develop a high level of buy-in on the part of intermediaries, which is needed to implement the policy effectively (Lane & Hamann, 2003).

Strong intermediary buy-in and involvement will add to the quality of the developed program by ensuring sensitivity to the sociopolitical context, providing comprehensive information regarding twice-exceptionality in the KSA, and obtaining field information about the current state of special education in the KSA (awareness, perspectives, practices, professional training). Surveys combined with focus groups comprised of representative stakeholders will provide balanced, comprehensive information from which to generate realistic options for a 2E policy (Lane & Hamann, 2003; Owen, 2014; Vandeyar, 2015).

The Key Stakeholders and Intermediaries

The significant stakeholders involved in this policy are as follows:

Twice-exceptional students. These students will be identified as 2E, and they will receive the benefits of this policy.

Special education teachers, gifted education teachers, and general education teachers. These stakeholders will receive necessary training, and they will provide 2E students with appropriate educational methods and teaching strategies in daily classrooms.

Para-professionals. These individuals will assist lead teachers to help 2E students with special needs.

Gifted Coordinators. These specialists will provide guidance and assistance to the lead teachers within gifted education.

Psychologists. Qualified psychologists will help assess and evaluate the abilities and disabilities of 2E students.

Counselors. Qualified counselors will offer support for the students with non-academic issues.

The policy makers. Policy makers will be members of the Ministry of Education and twice-exceptionality subject matter experts who will write and supervise the implementation of the policy.

The parents. The involvement of parents will help with the identification process, and parents are also a good source of information about most key aspects related to serving 2E students.

Major Cultural and Value Issues

Cultural sensitivity requires that policies recognize and honor specific cultural traditions. In establishing a 2E policy for the KSA, it is critical to identify cultural and value issues that may influence how stakeholders participate, value, and implement the policy. One major value issue is related to the idea of labeling students. The value issue that accompanies labeling is that students that have disabilities may hide or mask their weaknesses because they don't want to be seen as having a disability (Alquraini, 2010). It will be especially important to avoid labeling students as disabled in the KSA. Special attention should be given to the labeling issue during policy development because in the KSA disabilities have some potentially negative consequences that are related to the dominant religious beliefs and social mores. Although patience and respect related to disabilities is encouraged, those with disabilities still face difficulties in that they can't live independently and they may be ostracized (Alquaraini, 2010).

Another important issue to consider is that in the KSA it is mandated that students be segregated by gender, so the policy will need to accommodate this cultural mandate. Also, there may be specific educational subjects that are not currently acceptable for instruction within public schools in the KSA (such as music, dance, or performing arts). Such subject matter is not available to any student, regardless of their status as disabled, gifted, or average (Alamer, 2015). To accommodate for subject matter that may not be available at school, the policy will support recommendations for access to resources outside as well as inside the classroom to help 2E students develop their talents. These cultural characteristics will influence of the specific content of the identification and programming processes that accompany the 2E policy.

Key Elements of Policy Options

Generating feasible options and finalizing a 2E policy for the KSA requires developing a working definition for 2E students and a process for identifying them. The initial definition will model those found in current research. Similarly, a multi-faceted approach to identification is recommended (Baldwin et al., 2015a; Yssel, Adams, Clarke, & Jones; 2014)

Definition. To identify the issue of twice-exceptionality, a comprehensive definition should be formed to clarify the nature of the issue in the KSA, the people that need to be served, and what services they need. To benefit from the successes of the US education system, the 2eCop for twice-exceptionality definition will be used as an initial basis for the policy and adapted to Saudi Arabian culture and values, if necessary, based on input from the policy development group.

Identification. The foundation of a proposed policy rests on the appropriate identification of 2E students and the inclusion of valid assessment instruments, tools, and procedures. The KSA already has a systematic assessment procedure for identifying gifted students, the National Educational System (Alqarni, 2010), and a separate system for identifying students with disabilities. Identification procedures will be based on an empirical body of evidence about giftedness and disabilities, to the degree possible, the developed system will be integrated with existing processes. The identification process will consider a student's demonstrated strengths and interests, and it will also consider learning traits like commitment, motivation, and persistence.

Recent work advocates a dynamic problem-solving approach to delivering interventions that are targeted at addressing the needs of 2E students (Baldwin et al., 2015b). Two promising models in this area are the Multi-Tiered System of Support (MTSS) model and Response to Intervention (RtI) (Crepeau-Hobson & Bianco, 2011). Currently, practitioners integrate these approaches to develop appropriate interventions for students with academic issues, non-academic issues, or both (The National Center for Learning Disabilities, N.D.). According to the Colorado Department of Education (2017), MTSS is a data-driven problem-solving method for improving educational outcomes for students. School districts use MTSS to combine tackling behavioral concerns and academic ones, and MTSS and RtI often go hand in hand.

Response to intervention is a multi-tiered method for working with students with academic difficulties, behavioral issues, or both (Brown-Chidsey & Steege, 2005; Crepeau-Hobson & Bianco, 2011; Pereles, Omdal, & Baldwin, 2009; The National Center for Learning Disabilities, N.D.). Since 2E students are vulnerable to academic, social, and life adjustment difficulties, a tailored RtI system is an appropriate multi-faceted identification and intervention system for use with 2E students (The National Center for Learning Disabilities, N.D.; Yssel et al., 2014). The RtI system emphasizes prevention, and the key purpose of this model to identify students' difficulties early, provide remedial services for all students, and to evaluate the effectiveness of specific teaching methodologies used (Crepeau-Hobson & Bianco, 2011; National Joint Committee on Learning Disabilities (NJCLD), 2005); Volker, Lopata, & Cook-Cottone, 2006). The RtI approach includes three critical components for successful outcomes: tiered instruction and intervention, ongoing assessments, and family involvement. The RtI approach uses frequent data collection from the involved parties to make research-based decisions regarding student progress that guide appropriate interventions. RtI interventions emphasize the value and use of differentiated instructional strategies, which are appropriately adjusted according to changes in a student's progress and needs (Crepeau-Hobson & Bianco, 2011).

There is no universally-applied RtI model; however, most of them are divided into three tiers. In Tier 1, all students receive a standard, general education curriculum. Benchmark data are collected for all students three times a year. In Tier 2, students receive more intensive services in smaller groups, generally consisting of increased time, intensity, or duration of instruction. Progress data should be collected every week and instructional methods should be adjusted based

on these results. If a student does not respond to Tier 2 methods, they move onto Tier 3. This progression is generally viewed as a "failure to respond to intervention" and signals the possible presence of a learning disability. At this point, the student should participate in a comprehensive, multidisciplinary evaluation to determine if a learning disability exists. From there, appropriate services should be provided (The National Center for Learning Disabilities, N.D.). Proponents of this method assert that more timely, frequent, and intensive interventions will help distinguish between students whose difficulty comes from poor instructional methods from difficulty caused by a true disability (Fuchs, Mock, Morgan, & Young, 2003; Fuchs & Fuchs 2009; Volker et al., 2006).

Studies that identified weaknesses in basic RtI indicated that 2E students might still be overlooked (Assouline, Foley-Nicpon, & Whiteman, 2011; McKenzie, 2010). Identification of 2E students is problematic, and one of the main reasons for this difficulty is that 2E students' compensating strategies and masking effects complicate assessment results. Recently, researchers have developed modified RtI programs that are more suitable for use with 2E students (Crepeau-Hobson & Bianco, 2011; Yssel et al., 2014). The recommended multi-faceted process will follow the RtI model specifically developed for gifted students with learning disabilities presented by Yssel et al. (2014), with a view toward developing an efficient, tailored procedure for the KSA. The main feature of Yssel et al.'s (2014) modification is the use of a dual differentiation strategy. Dual differentiation involves addressing a student's gifts and integrating supportive instruction for challenge areas at the same time. Dual differentiation is implemented across all three tiers and intervention plans are adjusted regularly, driven by ongoing evaluations. The core principles of RtI (early intervention, high-quality instruction for all students, screening and progress monitoring, and differentiated instruction) allow dual differentiation, and this system can create a supportive learning environment for 2E students (Yssel et al., 2014).

The achievement-ability gap will clearly be an important factor in the identification process, and one instrument for initial consideration in a test battery is the Wechsler Intelligence Scales for Children, WISC-IV. Although specific research with the 2E population using this instrument is unestablished, specific subscales that do not consider working memory and processing speed are likely to be useful with this population (Krochak & Ryan, 2007). Some examples of tools that may be useful during the intervention process are scales for rating the behavioral characteristics of superior students (Renzulli, 2010), several forms suggested by Yssel et al. (2014), and the A-Lyzer Family of Interest Instruments (Renzulli, 1997). One caveat is that these tools are in English, and they will need to be translated and adapted for use in Arabic speaking countries and cultures. Instrument adaptations need to be carried out carefully to maintain reliability and validity. Also, best practices for twice-exceptional identification should include collecting information from all available sources including teachers, parents, peers, school staff members, and the student themselves. In the proposed system. careful consideration will be given to students whose results fall right at performance benchmarks or cutoff-scores (low or high), which should not be enforced rigidly.

Recommendations for Planning and Implementation

Planning and implementing a new policy for 2E students in the KSA will require substantial involvement of multiple levels of experts within and external to the Ministry of Education. Planning and implementation efforts will include the dissemination of the policy and training for multiple levels of school officials, teachers and other stakeholders. Furthermore, a 2E policy will drive the development of services that accommodate the dual differentiation

intervention strategy. Because educational authority in the KSA is centralized, the Ministry of Education will play a central role in the development, dissemination, and implementation of this policy.

Role of The Ministry of Education

Representatives from the Ministry of Education will provide authority, consistent communications, and resources for 2E policy development and implementation. The Ministry of Education will receive their own tailored workshop that will include a presentation and report on the new application for all phases of the 2E policy and how to monitor and review ongoing progress. Members of the Ministry of Education will also learn how to regularly obtain feedback from the teachers about successes and obstacles that arise with the implementation of the policy. Ministry representatives will be responsible for recruiting and providing expert trainers for twice-exceptionality. The Ministry will serve as the central point for accumulating, storing, and analyzing data. Ministry representatives will conduct periodic monitoring onsite in the schools and review documentation that confirms adherence to the policy. This should include reviewing samples of teachers' lesson plans and curriculum as well as IEPs for 2E students.

Financial Resources

There are significant financial commitments involved with developing and implementing any policy. The Saudi cabinet approves a budget with specific funding dedicated to the Ministry of Education. The direct costs associated with this policy will then be provided by the Ministry of Education. Members of the policy development group will conduct appropriate cost-related research and make specific budget recommendations to the Ministry of Education, which will then allocate budgets for policy development, training, policy implementation, and new services provided by the policy.

Disseminating and Implementing the Policy: (See Appendix I)

The Ministry of Education will create the policy in conjunction with specialized educators and advisors, and voting will take place to accept the policy. Immediately following approval, the policy will be disseminated to all districts, and the districts will distribute it to all schools within each district. Each school will then be responsible for ensuring that all stakeholders have been informed of the new policy. Key staff will sign an acknowledgement that they have received and will comply with the new policy. The policy will also be distributed to the families of all current students, who will receive a written announcement and copy of the policy.

Strategies for implementing the policy will include formal staff training for all groups of teachers and administrators. Workshops will be completed several times within the first implementation year to support staff development of 2E expertise. School administrators will be responsible for daily monitoring of the policy and ensuring that the teachers are following the appropriate procedures for the 2E learning. Administrators also need to provide encouragement and support to all personnel providing services to 2E students.

Workshops after the first year will reflect any changes made based on initial evaluation data. When implementing this policy one strategy that will be needed is flexibility in modifying the curriculum, teaching methods, and development strategies. Teachers will need support from the whole IEP team to help them fully comply with the policy.

Workshops and Trainings

Workshops will provide training on how to implement supports and services for 2E students. Response to Intervention training sessions will be held for all groups of teachers to help them learn to screen and identify 2E students as well as to train them in adapting curricula using appropriate strategies and methods for 2E teaching. The training workshops will teach the RtI model with dual differentiation as well as using student-centered approaches,
and including the student in development planning to increase interest and self-efficacy. General and special education teachers, psychologists, counselors, para-professionals, and gifted coordinators will be the primary personnel responsible for implementing the policy directly. Workshops will include basic information such as who is the 2E student, 2E characteristics, best practices for identification, best strategies for working with 2E students, collaboration, and how to communicate effectively to serve 2E students. Training sessions will include details on assessment tools to be used for identification, their practical application, and their use for ongoing evaluation.

Educational and Support Services

Instructional interventions and services will include modification and individualization of educational materials including the assigned curricula. The policy will also support the use of ancillary services (e.g., specialized therapists). Policy for 2E students will mandate the development of IEPs and emphasize the use of a variety of teaching strategies. Teaching strategies will include encouragement, understanding, and consideration of special interests. Teachers and other practitioners will focus on areas of excellence and attend to deficits as well. Teaching for depth and complexity will be emphasized in programming along with dual differentiation strategies

Some specific strategies that are used to provide services to 2E students in the U.S. include subject-matter acceleration work on strength areas, and strengths-based or talent-focused approaches (Baum, Schader, & Hebert, 2014). Enrichment programs will also be considered including the School Wide Enrichment Model (Renzulli & Reis 1985 1997), the Autonomous learner model (Betts, 1985), the Multi-Perspectives Process Model (MPPM), and contextualization and integration of skills development (Baum, Schader, & Hebert, 2014).

Programming will also address developing non-academic skills, such as organizing and time management skills, communication skills, leadership, and collaboration. Help with socioemotional needs will also be critical for 2E students including support for developing positive self-esteem, self-efficacy, and self-advocacy skills. 2E students with physical issues will receive modified or appropriate assistive technologies.

Evaluating the Effectiveness of the Policy

School administrators and representatives from the Ministry of Education will collect data for evaluations of program effectiveness and needed modification. Before the implementing the new policy, baseline data regarding student performance, achievement, and other characteristics will be collected using standardized testing to establish relevant data about the overall population of students. Current attitudes and practices of educators before the policy is implemented will also be collected to provide comparison data for a pre-post implementation evaluation. The same assessment instruments will be re-administered to the whole student body the next school year (after the policy has been implemented). Baseline data will help to identify any new trends in the student body data that may be related to the effectiveness of the policy.

One of the most critical evaluation activities for this program will be validating the developed twice-exceptionality identification process. Also, verifying with school administrators and Ministry representatives that the policy is actually being implemented will be foremost before attempting to assess outcomes of the programs. To evaluate the implementation process, surveys and observations will be a key source of data. Reviews of RtI documentation will also provide critical details about the nature of interventions that occur and whether substantial student progress results from service interventions.

Evaluation efforts will also address the importance of intermediaries. Data collection will include information about teachers' and other service providers' perceptions and activities related to the program, as well as objective measurements of teacher performance. Teachers are the first line of intervention, so their input will be critical for identifying strengths and weaknesses of the program. Input from both teachers, parents, and administrators will help to determine whether teachers are effectively trained and invested in the program on a personal level. Feedback from parents about student behavior and performance as well as their interactions with teachers and other stakeholders will provide yet another valuable perspective on the policy and its usefulness.

The first year will provide feedback on areas that need to be improved as schools try to implement this policy. Surveys will be distributed to all stakeholders such as teachers, parents, and administrators to evaluate their satisfaction with the policy and the outcomes that have been achieved. The evaluation group will collect data on short- and long-term student outcomes for ongoing development and evaluation efforts.

Conclusion and Implications

A policy for 2E students in the KSA is needed as there is currently no established process for identifying students that are gifted but have a coexisting disability. This new policy will assist the students that are currently overlooked in the general education system, and teachers will also benefit from the educational workshops and training they receive. The proposed system for identifying and supporting 2E students uses the RtI system of intervention for students with special needs. The dual differential strategy that is the key focus of the proposed program for 2E students likely has much broader applicability. To the degree that it is desirable to mainstream students, if possible, and RtI approach with a well-rounded universal screening process could be the foundation of a new public education paradigm for the KSA.

An important consideration in education policy development is to define the boundaries of responsibility placed on public schools, human services providers, and the central government in meeting the special needs of students. Although it is desirable in theory to provide a free public education to all students with special needs, case law in the United States has revealed that it is not always feasible or reasonable to meet all student needs across the K through 12 age range (Zirkel, 2004). For example, some parents have argued that the public-school system should pay college tuition for high school-aged gifted students who qualify for post-secondary instruction (citation). This type of complication makes it necessary for the Ministry to consider carefully defining the boundaries of financial and social responsibility for the public schools.

The policy will be evaluated throughout the first year, and thereafter, to determine if and how it is working and to address anything that is missing and needs to be modified. Ongoing data will be recorded and evaluated, and with the help of the Ministry of Education, ongoing support will be provided to ensure that the new policy is matched with the objectives and goals of the country.

Summary of Recommendations

The Ministry of Education in the KSA will create and apply a special policy for 2E students. The policy should include:

- Ministry of Education will adopt a comprehensive definition of twice-exceptionality modeled after the definition developed by 2eCop.
- Twice-exceptionality assessment tools, instruments, and procedures will be selected and adapted to use in Arabic cultures.
- The RtI model will serve as the initial system for identifying and providing interventions for 2E students.
- All groups of teachers, psychologists, counselors, para-professionals, and gifted coordinators will receive twice-exceptionality and RtI training, which includes defining 2E students and their characteristics, how to identify them, and the best strategies to work with them.
- After training, teachers and other providers will identify 2E students, in alignment with the current identification procedures for both gifted students and those with disabilities and use dual differentiation strategies to meet their needs.
- An evaluation plan will be designed and implemented to assure the effective implementation of the new policy.

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Appendix 1. The Timeframe of Implementing the 2E Policy

	Timeline	Ministry of Education	School District	Schools
Phase 1 Policy creation, dissemination, and training program development	Year One	Develop actual policy and complete approval process	N/A	N/A
	1 to 3 months	Disseminate the policy to the School Districts	Receive the policy	N/A
	Approximately 1 month	Disseminate the policy to all ministries and school districts.	Disseminate the policy to the individual schools.	Disseminate the policy and acknowledgement to all stakeholders: teachers, parents, students etc.
	6 months	Develop the training sessions for all key stakeholders	Provide input for training session development	Provide feedback, if feasible, on the training developed by the Ministry of Education.
Phase 2 Implementation	One year	Formal staff training for the Ministry on the new policy, RtI, and how to obtain data and provide support	Formal administrator training for implementation of the new policy	Formal practitioner training for implementation of the new policy (teachers, counselors, and so on).
		Onsite monitoring two times a year.	Gathering data on first phase of the new policy, what is working and what is not working. As well as assessing the implementation of the policy.	Ongoing workshops on 2E identification and practices twice during each semester of the first year.
Phase 3 Evaluation of Program Rollout	One year	Review data gathered by school administrators for program evaluation, and revise policy and programming accordingly if needed.	Districts review field evaluations and summarize for analysis by the Ministry of Education.	Follow up surveys and meetings with key stakeholders to evaluate initial rollout—results passed up to school district level.
Phase 4 Roll out modified policy and programs	Post-Evaluation year 1	Support, onsite visits and disseminate modified training programs	Deliver modified 2E workshops based on evaluation data.	Workshops on identification of 2E based on survey data.
Phase 5 2E student outcome evaluation	6 months - 1 year	Serves as data collection center	Gathers student outcome data from all schools within each district	Gathers 2E student outcome data from all key stakeholders
Phase 6	5-year outcome study	Provides authority to collect data and serves as data collection center	Gathers student outcome data from all schools within each district	Gathers 2E student outcome data from all key stakeholders