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Rethinking gifted education in Jordan: An analysis of the role of educational and learning capitals

Anies Al-Hroub^{1*}

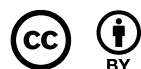
Abstract: The focus of this theoretical article is to critically analyze and expound upon the impact of educational and learning capitals on the education of gifted students in Jordan. The article begins by offering a comprehensive examination of the educational system in Jordan, and providing an overview of the present state of gifted education within the country, including the refugee challenges it faces and the expenditures made by both public and private educational institutions. This is followed by a detailed discourse on the ten educational and learning capitals in the context of gifted education in Jordan, utilizing relevant evidence-based literature as a basis. The article concludes by offering insights into the cost of gifted education, the definition and recognition of gifted individuals, teacher training, and the efficient utilization of educational resources for gifted students.

Subjects: Gifted & Talented; School Psychology

Keywords: Giftedness; learning resources; educational capital; learning capital; refugees; Jordan

1. Jordan profile

The Hashemite Kingdom of Jordan is a relatively small country located in the Arab world, covering an area of 89,320 square kilometers, slightly smaller in size than Portugal. Jordan is bordered to the north by Syria, to the east by Iraq, to the southeast and south by Saudi Arabia, and the west by historic Palestine. As of 2023, the population of Jordan, as reported by the United Nations Worldometer (2023), stands at 10,458,425. The majority of the population consists of Arabs, primarily Jordanians, and Palestinians, with the latter making up more than half of the total population of the kingdom. Jordan is unique among Arab countries in that it grants wide-scale citizenship to Palestinian refugees. Additionally, there is a substantial number of Syrian and Iraqi refugees, as well as smaller Circassian, Armenian, and Turkmen communities (Bickerton et al., 2023). Arabic is the official language of Jordan and is widely spoken by the majority of the population, including refugees and minority communities. English has been taught as the primary foreign language in Jordan's public and private schools and universities since the country's independence in 1946, while students in private schools have the option of learning additional languages such as French, German, and Spanish. Bilingualism is common among minority communities, with the Armenian community speaking both Arabic and Armenian (Bickerton et al., 2023). In 2018, the youth literacy rate (% of people aged 15–24) for Jordan was 99.3% (99.49% for females, and 99.20% for males), which is the highest in the Arab countries (UNICEF, 2023). Jordan's adult total literacy rate (98.23%) is also ranked the highest in the Arab World. While



the male literacy rate is 98.61%, the rate for females is 97.83%. For comparison, the world adult literacy rate average in 2018 based on 72 countries is 84.34% (World Bank, 2023).

To develop a deeper understanding of the circumstances surrounding gifted education in Jordan, it is imperative to undertake a thorough examination and elucidation of the nation's educational system, school enrollment patterns, and the status quo of the higher education sector.

1.1. Structure of the educational system in Jordan

The Jordanian educational system is comprised of both formal and non-formal segments. The non-formal segment encompasses two years of preschool education, which is conducted by private entities and caters to children as young as three years of age. The formal education system is structured sequentially, starting with a mandatory 10-year basic stage for children aged 6 to 15 years. This stage consists of primary school (grades 1–6) and preparatory/middle school (grades 7–10). Subsequently, students have the option to pursue either a two-year comprehensive secondary academic program or a secondary vocational program (grades 11–12). Upon completion of secondary education, students may opt for higher education, which is either offered in the form of a two-year intermediate-level course through community colleges or a four-year university-level program in either public or private institutions. Admissions to higher education institutes are determined solely based on the results of the General Secondary Education Certificate Examination (Tawjihi) or any equivalent certificate, such as the International Baccalaureate (IB) or the International General Certificate of Secondary Education (IGCSE) (Al-Hroub, 2015; Bataineh & Montalbano, 2018).

1.2. Educational provision and school enrollment in Jordan

The number of students for the 2020–2021 school year in all education sectors in Jordan reached 2,177,307 including 119,185 students from the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) schools. According to the “Statistical report for the academic year 2020–2021” issued by the Ministry of Education (MOE), there are 7,127 schools in Jordan distributed as follows: public schools (3,967), private schools (2,943), other governmental (48), and UNRWA schools (169). The number of schoolteachers is 130,089. In 2021, there are around 16.7 students per teacher in both public elementary and secondary education (Ministry of Education MOE, 2021).

Table 1 shows that the majority of students, 74.1%, attend public and other government-affiliated schools, while 20.4% of students attend private schools. Only a small fraction, 5.5%, attend schools under the United Nations Relief and Works Agency (UNRWA) for Palestinian refugees. It is noteworthy that the enrollment rates for male and female students differ among the various types of schools, with higher enrollment percentages for females in public schools, and higher enrollment percentages for males in private, UNRWA, and other government-affiliated schools (Ministry of Education MOE, 2021).

1.3. Higher education system in Jordan

The Ministry of Higher Education and Scientific Research (MHESR), established in 1985, oversees higher education in Jordan. This ministry is responsible for the accreditation of degrees and disciplines offered by higher learning institutions. Jordan is known for its numerous higher education establishments and boasts 12 public and 25 private universities. According to the 2020 statistics report from the MHESR, Jordan is home to 31,770 faculty and staff members, with 298,819 undergraduate students enrolled in public universities (70.6%) and 36,360 graduate students in public universities (75.8%) (MHESR, 2020). The universities in Jordan offer a diverse range of academic programs, including 948 programs at the BSc level, 476 at the master's level, and 105 at the Ph.D. level (Mahafzah, 2017).

In Jordan, education and scientific research are highly regarded in society, as evidenced by the numerous universities in the country and a significant number of research publications. Data from

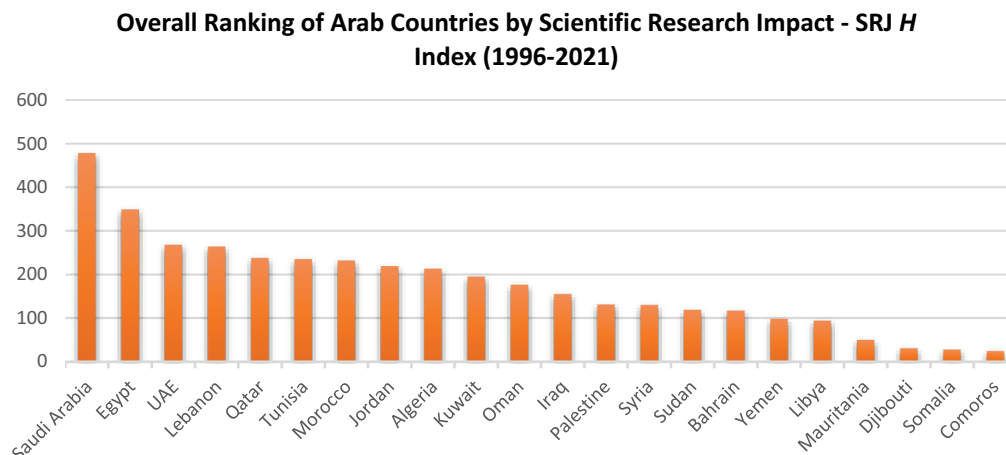
Table 1. Students' and teachers' distribution across schools in Jordan for the academic year 2020–2021

Type of School	# of Schools	# of Teachers	Total # of Enrollment	# of Females	% of Females	# of Males	% of Males
Public	3,967	85,845	1,592,787	826,510	51.9	766,277	48.1
Private	2,943	38,010	444,943	187,092	42	257,851	58
Other governmental	48	1,961	20,392	3,265	16	17,127	84
UNRWA	169	4,273	119,185	57,789	48.5	61,396	51.5
Total	7,127	130,089	2,177,307	1,074,656	49.4	1,102,651	50.6

Note: (Ministry of Education MOE, 2021)

Figure 1. Overall ranking of Arab countries by scientific research impact (1996–2020) .

Note: Metrics based on Scopus® data as of January 2022



the SCImago Journal and Country Rank (SRJ, 2023) indicate that higher education institutions in Jordan have produced 60,967 publications with 58,789 citations from 1996 to 2021. This places Jordan as 8th among 22 Arab countries in terms of the number of publications and cited publications and 8th among 22 Arab countries and 76th among 242 countries in scientific research impact classification (H Index = 219) (see Figure 1). Additionally, Jordan produces a significant number of qualified professionals across various fields. In recent decades, there has been a growth in research focused on giftedness, particularly by university scholars and graduate students.

Several higher education institutions in Jordan, such as the University of Jordan, Mutah University, Yarmouk University, Applied Balka University, Al-Bait University, and Amman-Arab University for Graduate Studies, have played a pivotal role in the development of knowledgeable professionals in the field of gifted education. These universities have offered programs at the Bachelor’s, High Diploma, Master’s, and Ph.D. levels that are aimed at producing experts who can effectively address the needs of gifted and talented students Shubaki, 2007). Moreover, various Jordanian universities have hosted professional development programs, workshops, and conferences dedicated to the advancement of gifted education in the past few decades.

2. Overview of gifted education in Jordan

Jordan was at the forefront of nations in the region that sought to invest in nurturing gifted and talented students. The initiation of programs to serve these learners began in 1982 with the creation of the Al-Salt Center for Gifted and Talented Students. However, the formal mandate to serve gifted students in both public and private sectors was implemented in the 1986/1987 academic year following the issuance of Ministerial Resolution No. 135/86 (Ghanem, 2011).

The MOE officially endorsed a national gifted education project, which was closely monitored by the Minister. This project had well-defined objectives, including the identification of academically and intellectually gifted primary students through cognitive and intelligence assessments, the provision of enrichment programs for gifted students in grades three and four, and ongoing follow-up and support for primary and intermediate gifted students in areas such as Arabic, mathematics, and science. In 1993, the administration of the project was transferred to the General Secretariat for Special Education within the MOE (Ghanem, 2010).

The MOE, through its Directorate of Special Education and the Division of Programs for the Gifted, established in 1995, provides support for gifted students. This support includes exceptional promotion to a higher class appropriate for their mental age, which is not allowed to occur more than twice during the basic education cycle. Although the education of gifted and talented children is not legally recognized as special needs education, it is overseen by a division within the General

Education Directorate that considers these students as part of the special needs population (Ghanem, 2010). The MOE offered several programs for gifted students over the past four decades, which are described as follows:

2.1. Pioneering centers for gifted and Talented

The establishment of the first center dedicated to nurturing gifted and talented students in Jordan took place in Al-Salt in 1982, through a collaborative effort between the Emaar Al-Salt Foundation, the University of Jordan, and the MOE (Ghanem, 2011). Over the intervening years, the number of such centers has grown to 19, situated across various educational directorates and governorates in the country. These centers play a vital role in the identification of gifted students and the provision of advanced educational experiences in subjects such as science, mathematics, Arabic, and English. The centers are equipped with modern educational facilities and staffed by highly qualified teachers. They offer after-school enrichment opportunities for intermediate and secondary school students (Grades 7–12), for a total of nine hours per week, spread over three days (Ghanem, 2011). In addition to providing advanced instruction in science, mathematics, Arabic, and English, the centers also offer creative activities such as computer classes, music, art, and laboratory experiments. More than 3,500 students benefit from these centers, which are staffed by approximately 400 teachers. However, according to Jarwan's (2009), there are inadequate objective criteria or standards in place to establish Pioneer Centers for gifted students in specific directorates.

2.2. The academic acceleration programs

The Jordanian MOE endorsed the acceleration program for gifted students in 1994. The program enables highly advanced learners to advance one or two grade levels in grades 2–8 (Rahman & Al-Zoubi, 2014). The program enables highly advanced learners to “skip” or progress to higher-grade levels in grades 2–8 (Rahman & Al-Zoubi, 2014). Gifted students can be promoted to a class that is more suitable to their mental age, but this promotion can only occur twice for the same student during the basic educational cycle (Al-Hroub, 2005). The program provides full-time acceleration services to academically and intellectually gifted students, with an average of 80–100 students accelerated annually (Ghanem, 2011). The eligibility criteria for acceleration include an intelligence score of 136 or higher and demonstrated high academic performance (95% or above) in each of the four basic academic subjects (Arabic, English, mathematics, and science). The procedures for accelerating gifted students include conducting cognitive and intellectual abilities tests (Ghanem, 2011).

2.3. Jubilee school for gifted and talented

The Jubilee School is an independent, co-educational high school in Amman, Jordan, established in 1993 to serve academically and intellectually gifted students. The school operates under the supervision of the MOE and is considered one of the leading institutions for gifted education in Jordan. It offers a comprehensive four-year secondary education program (Grades 9–12) that caters to the academic, social, emotional, and intellectual needs of gifted students, nurturing their intellectual abilities and leadership skills (Al-Hroub & Krayem, 2020; Shahin, 2010).

The curriculum at the Jubilee School is designed to challenge and engage highly advanced students and includes a variety of subjects such as mathematics, science, Arabic, English, social studies, and the arts. In addition to the standard academic subjects, the school also offers a range of enrichment programs and activities designed to develop students' critical thinking and creativity (Al-Hroub, 2005, Al-Hroub, 2022; Krayem & Al-Hroub, 2019). The Jubilee School draws inspiration from American models, particularly the North Carolina School of Science and Mathematics, in its design and program offerings (Evered et al., 1997). While offering a comprehensive educational program, the Jubilee School places a particular focus on mathematics and science. The faculty strives to enrich and expand the education of their students by incorporating independent studies, project-based learning, and research projects into the curriculum, in addition to the MOE's prescribed program (Shahin, 2010). Eligible students must demonstrate exceptional cognitive and

intellectual abilities, as well as high academic performance in all basic academic subjects. The Jubilee School teachers are responsible for delivering the MOE-mandated curriculum while also enhancing the students' learning experience through additional activities such as independent studies, project-based learning, and research projects (Shahin, 2010).

2.4. The jubilee center of excellence in education

The Jubilee Institute, comprised of both the Jubilee School and the Jubilee Center for Excellence in Education, was instituted in 1992. The Jubilee Center engages in collaboration with the MOE and other relevant educational establishments to foster and disseminate knowledge concerning innovative methodologies and advancements in the disciplines of mathematics, science, and humanities, thereby serving as a valuable resource for secondary school educators in Jordan. The Center also offers a diverse array of training programs focused on the assessment and development of gifted and talented students (Shahin, 2010).

2.5. King Abdullah ii schools for excellence

This three-year national initiative was initiated in the academic year 2000/2001 in the city of Al-Zarqa and is realized through the establishment of 19 public schools specifically catering to academically gifted students, distributed across various governorates throughout the Kingdom. The target population of the project consists of seventh-grade students, who are selected from sixth-grade schools. The objective of the schools is to cultivate the diverse talents of students in the areas of art, literature, and science (Al-Hroub, 2005; Rahman & Al-Zoubi, 2014). Eligible students are those who exhibit exceptional academic performance, achieving grades of 95% or above in each of the fundamental subjects of Arabic, English, mathematics, and science in fifth and sixth grade, and who attain an Intelligence score of 130 or higher (Shoubaki, 2007; Rahman & Al-Zoubi, 2014).

2.6. King Abdullah ii center for excellence

The Center was established in 2006 to foster a culture of excellence, competitiveness, and innovation among individuals and institutions on a local and regional scale. The Center has the responsibility of overseeing the administration of the King Abdullah II Awards for Excellence, which have become the most distinguished awards for promoting and preserving the culture of excellence at the national level across both public and private sectors. The Center currently manages ten awards, including the King Abdullah II Award for Excellence in Government Performance and Transparency, the King Abdullah II Award for Special Institutional Excellence, the Creativity Award, the Government Service Award, and the Jordan Source Award (Al-Mhasnah et al., 2018).

2.7. Resource rooms program for gifted

In the academic year 1999/2000, the MOE initiated the use of fully-equipped resource rooms within regular public schools to identify and provide enrichment activities to students with potential talents, based on the areas of excellence demonstrated by the students, such as academic achievement, artistic talent, creative abilities, and leadership skills (Al-Hroub, 2005). In 2001/2002, the MOE, through its Directorate of Special Education and the Division of Programs for the Gifted and Talented, extended its special educational services to gifted students in grades 3–10, utilizing 15 resource rooms distributed throughout various directorates of education. According to the latest statistics for the academic year 2021/2022, the number of resource rooms for gifted students has grown to 70, benefiting 2,000 students, and is staffed by approximately 150 teachers (MOE, 2023).

3. Effects of educational and learning capitals on gifted education

In Jordan, several challenges and concerns are prevalent in the field of gifted education. Firstly, a majority of gifted education institutions face an absence of allocated budgets for their operational expenses. These institutions rely solely on student fees and limited financial support from the MOE's Managing Special Education Directorate. Secondly, the distribution of gifted education institutions is not based on clear criteria or standards and lacks proper articulation and

endorsement from the government. Additionally, the Resource Rooms program requires greater structure and oversight from MOE specialists (Jarwan, 2009).

Thirdly, research in the field of gifted education is largely conducted by scholars and students; however, it lacks sufficient financial support from the government or MOE to advance research initiatives, particularly in the development of psychometric assessment scales. Fourthly, the identification of gifted students has primarily focused on the adaptation of western intelligence and psychometric scales, rather than developing original Jordanian scales, leading to shortcomings in student identification and selection processes in many gifted education programs (Al-Hroub & Whitebread, 2019; Al-Hroub, 2021; Jarwan, 2009; Yamin, 2009).

Fifthly, there is a discrepancy between theory and practice in the definition of giftedness and the difficulties faced by teachers in adapting materials for gifted and able students. Furthermore, a lack of professional in-service training for gifted education teachers exacerbates the problem. Professional training needs to be strengthened through systematic development programs (Jarwan, 2009).

The following analysis delves into the intricacies and challenges in the provision of gifted education in Jordan, by considering ten educational and learning capitals based on the Systems Theory and Actiotope Model of Giftedness. The educational capitals encompass economic, infrastructural, cultural, social, and didactic aspects, while the learning capitals encompass organismic, actional, telic, attentional, and episodic components (Ziegler & Baker, 2013; Ziegler et al., 2017, 2019).

3.1. Educational capitals

3.1.1. Economic educational capital

The concept of economic educational capital encompasses various forms of material resources, such as financial assets, real estate, and property ownership, which can be utilized to access or sustain educational and learning opportunities in gifted education (Bourdieu, 1986; Ziegler & Baker, 2013). Government expenditure on education, total (% of GDP) in Jordan was reported at 3.2% (approx. 1.2 billion JOD) in 2021, 9.7% of the estimated total government expenditure (World Bank, 2022). The budget allocated to the MOE represents around 85% of the estimated total public expenditure on education, whereas the remaining allocations include education expenditures by the MHESR (9.1%) and other ministries. The MOE offers financial and human support to identify and serve gifted education in public schools. The budget allocated for services and programs, such as the Pioneering Centers for Gifted and Talented, King Abdullah II Schools for Excellence, and the Resource Rooms Program. However, Jarwan's (2009) indicated that the allocated budget is not adequate to support some programs, particularly the Resource Rooms program.

In Jordan, various universities, such as the University of Jordan, Mutah University, Yarmouk University, Applied Balka University, Al-Bait University, and Amman-Arab University for Graduate Studies, provide pre- and in-service professional and academic programs for gifted students in schools. Over the past few decades, numerous university graduates have become teachers, specialists, and diagnosticians equipped to handle gifted students in both public and private schools (Al-Hroub, 2005). Some private schools have garnered recognition for their gifted student programs, such as Al-Manhal International Schools, Jordanian International Schools, and King's College. The gifted program at Al-Manhal International Schools, for instance, provides enrichment activities based on Renzulli's Schoolwide Enrichment Model and is offered to 10% of the school's third-grade students during weekends, summers, and regular school days (Rahman & Al-Zoubi, 2014). Additionally, Jordanian International Schools teachers implement differentiation activities and the Renzulli Learning System in their classrooms (WCGTC, 2012). The Summer Enrichment Program (SEP) at King's Academy serves as a community outreach initiative to provide high-quality education to exceptionally gifted Jordanian students, regardless of their socio-economic

background. This annual summer program is designed for academically talented students from underprivileged areas in Jordan, offering them opportunities for educational enrichment in the subjects of English and information technology, as well as various seminars and workshops on current local and regional issues. Eligible students in the seventh grade can participate in the program annually until they reach ninth grade, as long as they maintain good academic and behavioral standing at SEP and their respective schools (King's Academy, 2023).

Several organizations, including The Royal Hashemite Court, the Elia Nuqul Scholarship Fund, the Eqbal Investment Company scholarships, the MHESR scholarship program, the UNRWA Scholarship Program for Palestinian refugees in Jordan, the European Union EDU-Syria/EDU-Jordan Scholarships for Syrian Refugees, and the Erasmus Program, are committed to promoting access to higher education institutions for gifted scholars from disadvantaged backgrounds. These organizations have provided financial support to thousands of Jordanian, Palestinian, and Syrian refugees living in Lebanon over the years (Doctoral and Postdoctoral, 2023). Additionally, the Al Hussein Fund for Excellence (HFE), established in 1999 and funded by the banking community in Jordan as part of their social responsibility initiatives, provides funding for innovative and creative individuals and projects. The HFE has become a center for promoting excellence and fostering innovation among creative and gifted individuals and groups in both the private and public sectors in Jordan (Rahman & Al-Zoubi, 2014).

3.1.2. *Infrastructural educational capital*

The concept of infrastructure educational capital encompasses both public and private physical structures that are crucial in facilitating the provision of education and learning opportunities (Ziegler & Baker, 2013). This encompasses facilities such as special schools, learning centers, online resources, libraries, and universities (Al-Hroub, 2022).

In the mid-1980s, Jordan underwent a comprehensive evaluation of its education system, leading to the passage of Education Act No. 3 in 1994 (Sa'd, 2007; William, 2014). The initial phase of reforms, which took place from 1989 to 1995, focused on establishing the necessary infrastructure for the development of the education system (William, 2014). The second phase of reforms, from 1996 to 2000, focused on improving facilities, equipment, teaching methods, and assessment processes, introducing educational innovations, and launching special education programs for gifted and special needs students (Sa'd, 2007; William, 2014).

In line with these efforts, the MOE established the resource room program, which comprises 70 rooms and serves approximately 2000 gifted students (MOE, 2023). Additionally, the MOE supports the King Abdullah II Schools for Excellence, which are located in various regions of Jordan. Other public infrastructures that cater to gifted students include the Jubilee School for Gifted and Talented, the Jubilee Center of Excellence in Education, and several private institutions such as Al-Manhal International Schools and King's College.

3.1.3. *Cultural educational capital*

The notion of cultural-educational capital encompasses the accumulation of various components that influence a learner's education and learning outcomes. This encompasses a wide range of factors such as knowledge, behaviors, attitudes, experiences, and skills that contribute to an individual's cultural knowledge, awareness, beliefs, competencies, and practices (Bourdieu, 1986). The cultural-educational capital of a learner can play a crucial role in facilitating or hindering their academic progress and attainment of educational goals (Ziegler & Baker, 2013). The cultural value system, beliefs and attitudes towards gifted and academically gifted learners, and the perceptions and valuations of talents are all integral components of cultural-educational capital. Further work is needed to explore these aspects in the context of Jordanian society, with a focus on understanding the cultural views and attitudes toward giftedness among Jordanian teachers and students. In this context, we analyzed, "The cultural value system's association with the concept of giftedness", "The perceptions and beliefs held by Jordanians regarding

academically and gifted students, the primary understanding of giftedness as perceived by Jordanian teachers and students, and the talents that are considered valuable”.

In Jordan, the strengthening and modernization of the education system are of utmost significance. Despite a high literacy rate and the presence of numerous universities that attract substantial numbers of local, Arab, and international students, a cultural predisposition towards academic programs in preference to vocational programs is prevalent among students and parents. This cultural inclination originates, to some extent, from the dual academic-vocational educational system in place. While academic tracks are perceived to be indicative of high intellectual and academic capability, vocational tracks are associated with low performance on the Tawjihi examination. This has resulted in a negative perception of manual and skilled labor, characterized as “the shame culture,” where individuals place a premium on high academic positions and elevated social status within the realms of education and employment. This cultural bias is comprehensively addressed by Sa’d (2007),

The preference for academic education instead of vocational education is historically based on the sociocultural development of our value system which, over the years, has given white collar professions like medical doctors, engineers, and lawyers a higher prestige and reputation than blue collar occupations like mechanics, carpenters, bakers, or even farmers. Even our social relations, customs and such traditions as marriage have been deeply affected by such a negative value system (p. 18).

In Jordan, the identification of gifted individuals is influenced by cultural views and perceptions of giftedness, as is the case in other contexts (Al-Hroub, 2012, 2013; El Khoury & Al-Hroub, 2018). There are no legal or official definitions of giftedness in Jordanian education laws, which can make it difficult for teachers and specialists to identify students with potential gifts and talents (Alodat & Zumberg, 2019). However, the Jordanian MOE’s Department of Gifted and Talented Programs defines gifted learners as students who perform exceptionally well compared to their peers in one or more areas, such as general intellectual ability, visual and performance ability, leadership, and specific academic ability, and these students make up approximately 25–30% of their class community.

The Department adopts a multi-faceted approach in its identification of gifted students, incorporating various criteria such as (a) superior academic performance, as evidenced by being ranked within the top 10% of students in the sixth and seventh grades in the subjects of the Arabic language, English language, and mathematics, (b) high scores on an achievement test specifically designed by the Department, (c) demonstration of exceptional abilities in diverse areas, evaluated by subject experts, (d) assessments of motivation, leadership, thinking skills, and creativity, obtained from teacher-completed behavioral characteristics checklists, and (e) a personal interview conducted by a committee appointed by the Department (Alodat & Zumberg, 2019). According to Yamin (2009), the identification of gifted students in Jordan commonly relies on a combination of the following criteria: (a) high cognitive ability, indicative of exceptional intelligence, (b) a remarkable level of creativity, (c) a robust commitment to tasks, (d) relevant behavioral characteristics associated with giftedness; and (e) outstanding performance in specific academic subjects.

Al-Hroub and El-Khoury (2018a, 2018b) and Yamin (2009) elucidates that the perspectives on giftedness in the Arab world, including Jordan, are significantly influenced by Western theories (such as those proposed by Renzulli, Marland, and Sternberg). Nonetheless, intellectual aptitude and academic performance in schools continue to play a predominant role in the definition and selection of gifted students in Jordan. This has resulted in the marginalization and under-representation of numerous gifted individuals, particularly those who are twice-exceptional, gifted refugees, and those with unique talents (Aloda & AlMomani, 2019; Aloda & Gentry, 2022; Al-Hroub & Whitebread, 2008, 2019; Al-Hroub, 2007, 2009, 2010, 2014, 2020, 2021). The current practices in

Jordan are shaped by the cultural value system, which places a stronger emphasis on academic achievement. This creates a gap between theory and practice in the identification and provision of services for the gifted in Jordan (e.g., Jubilee School for Gifted and Talented, Abdullah II Schools for Gifted and Talented, Pioneering Schools, etc.). Although these institutions adopt a broad conceptual definition of giftedness, their practices tend to be primarily focused on identifying and serving intellectually and academically gifted learners.

3.1.4. *Social educational capital*

Social Educational Capital encompasses all individuals and social entities that can positively impact the outcome of educational and learning processes. This includes, but is not limited to, teachers, practitioners, parents, mentors, and advocacy organizations (Ziegler & Baker, 2013).

In the Jordanian context, the educational system in public schools does not mention legislative advocacy bodies like parents' associations that could contribute to decisions related to gifted education. However, the MOE national education strategy stresses the importance of establishing partnerships among students, teachers, principals, and the local community (MOE, 2006). Over the past two decades, several teacher-initiated school-parent-community partnerships have been recognized with the Queen Rania Award for Excellence in Education (QRA). The award program aims to acknowledge, reward, and honor excellence in teaching, based on criteria such as teaching effectiveness, resource management, professional development, relationship with the community and parents, innovation, and performance. Since its inception in 2005, the QRA has honored 373 outstanding teachers and provided over 1,200 professional development opportunities and 170 university scholarships throughout Jordan (QRF, 2023).

In addition to QRA, several key avenues for the advancement of gifted education in Jordan exist. Firstly, there is a proliferating number of services and programs for gifted students in Jordan. Over the past four decades, the MOE has extended special services and programs to thousands of gifted students through institutions such as the Jubilee School for Gifted and Talented, Pioneers Centers for Gifted and Talented, the Resource Rooms Program, the Abdullah II Schools for Excellence, and others. Secondly, there is a growing number of academic programs and graduates specializing in gifted education at universities, such as the University of Jordan, Mutah University, Yarmouk University, Applied Balka University, Al-Bait University, and Amman-Arab University for Graduate Studies (Shubaki, 2007). Moreover, various Jordanian universities have offered professional training programs, forums, and conferences on gifted education in the past decades.

Thirdly, there has been extensive research undertaken by scholars, researchers, and students in the field of gifted education. Lastly, there has been a marked increase in collaboration with regional and international organizations concerned with gifted education, such as the Arab Council for the Gifted and Talented (ACGT), the International Center for Excellence and Innovation (ICIE), and the World Council for Gifted and Talented Children (WCGTC). ACGT, founded in Jordan in 1996 and led by Jordanian scholars, has a membership exceeding 868 individuals from 21 Arab countries including Algeria, Bahrain, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, UAE, and Yemen. The Council has supported 15 conferences, with the first one taking place in the UAE in 1998, and subsequent events alternating between Jordan (2000, 2003, 2005, 2007, 2009, 2010, 2011, 2013, 2015, 2017, 2023) and Egypt (2019, 2021) (Gifted Phoenix, 2023). Similarly, ICIE, founded by Jordanian and German researchers and based in Germany, has provided a series of conferences on gifted education in both Arabic and English for Arab and Jordanian scholars, students, and practitioners.

3.1.5. *Didactic educational capital*

The concept of Didactic Educational Capital, as posited by Ziegler and Baker (2013), refers to the accumulated knowledge and expertise involved in the creation and enhancement of educational

and instructional processes. This encompasses various aspects such as specialized curricula, teacher training programs, and instructional placement (e.g. mainstream schools, special classes).

In the realm of special or gifted education, various settings have been proposed in the literature, including resource classes, general education classrooms, special programs (e.g. acceleration and enrichment), and special classes/schools specifically catering to gifted students (Al-Hroub, 2010). Gifted students in Jordan have availed of acceleration and enrichment models. The MOE has established specialized schools and centers for gifted students, with mainstream programs (such as resource room programs) and special schools (such as Abdullah II Schools, Pioneer Centers, and Jubilee School) serving a substantial number of gifted students. Despite the growing trend of inclusion of students with disabilities in general education classrooms in Jordan over the past two decades, teachers still face uncertainty about the most effective way to provide services for gifted students within the public school framework (Abu-Hamour & Al-Hmouz, 2014).

Over the past two decades, there has been a proliferation of research on gifted education programs in Jordan (e.g. Al-Hroub & Krayem, 2020; Al-Hroub, 2021; Alkhazaleh, 2020; AlSaydeh, 2016; Aqel & Alqamash, 2022; Evered et al., 1997). These studies have revealed that resource rooms are often insufficiently equipped and lack structured enrichment materials, leaving teachers to provide students with whatever they consider challenging, often without proper supervision. The MOE's inadequate budget has been cited as a key factor contributing to the scarcity of enrichment materials in the resource room program (Jarwan, 2009).

In reference to the King Abdullah II Schools for Excellence, some reports indicated that they are lacking structured enrichment activities aimed at fostering students' personalities, leadership, or creative abilities. Conversely, the school's accelerated program has been relatively successful both academically and socially, although the emphasis on high achievement, particularly for twelfth-grade students, has been deemed excessive (Al-Rabee, 2020). Jarwan (2009) posits that the results of multiple studies indicate that the achievement levels of accelerated students are indeed high and may surpass those of students in enrichment programs.

In general, the teacher training programs offered at Jordanian universities for special education lack specialized courses for the education of gifted students. Thus, there is a critical need for further university programs to prepare teachers in identifying and serving gifted students effectively.

3.2. Learning capitals

3.2.1. Organismic learning capital

Organismic learning capital, as defined by Ziegler and Baker (2013), encompasses the physiological and inherent resources of an individual, such as a healthy body and physical fitness and appearance. However, little research has been conducted on the physical attributes of gifted learners in Jordan and the Arab world. While the MOE's definition of giftedness in Jordan does not explicitly consider physical fitness and appearance, the focus of schools in the region, including Jordan and Lebanon, has primarily been on academic, intellectual, followed by social and creative abilities (Al-Hroub, 2022; Al-Hroub & El Khoury, 2018a, 2018b).

The popularity of team sports such as football and basketball is widespread in Jordanian schools, with volleyball and handball also being widely played. Football was introduced in Jordan during the Ottoman Empire when Jordan was part of the empire. The first recorded practice of basketball in Jordan took place in 1937 at Al-Asbaliyah school in Amman (Jordanian Basketball Federation, 2023). Jordan has a good sporting history, having won two Pan Arab Games football tournaments in 1997 and 1999 and the Arab Basketball Champions in 2007. In individual sports, boxing, taekwondo, and swimming are widely practiced in Jordan (World Atlas, 2019). In recent years,

Jordan has shown a heightened interest in taekwondo, which led to the country's first-ever gold medal at the Olympic Games in Rio De Janeiro in 2016 (Freij, 2019).

In 2005, the Jordanian MOE established the King Abdullah II Award for Physical Fitness, which is a physical fitness promotion program designed to complement the regular physical education curriculum for children aged 9–17 years. This school-based national initiative, led by the MOE in partnership with the Ministry of Health and the Royal Health Awareness Society of Jordan President Award, targets young people who make up around one-third of the Jordanian population. The objective of the award is to encourage a culture of healthy lifestyles based on exercise and sound nutrition and to identify and develop students' potential, talents, and skills (Rania, 2008). The participation of schools in the King Abdullah II Award for Physical Fitness continues to grow each year. During the 2022–2023 academic year, approximately 800,000 students from all types of schools, including public, private, military, and UNRWA schools, participated in the 17th edition of the award. These students were between the ages of 9 and 17 (Jordan Times, 2022a).

The Run Jordan Organization has been instrumental in organizing the annual and international Amman International Marathon (AIM) since 2009. As part of their efforts to promote healthy habits amongst school children and to foster a new generation of long-distance Jordanian runners, the organization established the AIM Junior Runners program in 2014. This program organizes special running activities for physical education teachers and children in an increasing number of public and private schools. Additionally, the Elite program, also organized by the Run Jordan Organization, provides financial support to elite Jordanian athletes to participate in regional and international marathon events. This program helps to promote the growth and success of Jordanian athletes in the sport. Another example is the Royal Jordanian Equestrian Federation (RJEF). The RJEF established in 1988, plays a significant role in the promotion of equestrian sports and equine welfare in Jordan. Intending to organize, develop, and revitalize all equine and equestrian interests in the country, the RJEF strives to attain the highest level of well-being, integrity, and accessibility for Jordanian equestrian sports.

Regarding dietary habits and physical activity levels, In Jordan, between the years 1980 and 2013, 24% of male and 25.4% of female individuals under the age of 20 were either overweight or obese, with 8.0% being classified as obese (Al-Domi et al., 2019). Tayyem et al. (2014) conducted a study that investigated the prevalence of obesity and related factors among secondary-school students in Jordan. The sample of the study comprised 386 males and 349 females aged 14–18 years, enrolled in both public and private schools. Results of the study revealed that the prevalence of obesity was significantly higher among adolescents in private schools (26.0%) compared to those in public schools (16.7%). Additionally, the frequency of breakfast intake was significantly higher among adolescents in private schools, while French fries and sweets intake was significantly higher in public schools. Moreover, students in private schools exhibited a higher degree of physical inactivity. Although the dietary habits of students in private schools were slightly better, they still had a higher incidence of overweight and obesity compared to their peers in public schools.

Numerous efforts and research have been undertaken to encourage healthy eating habits and physical activity among school-aged children in Jordan. In 2021, the United Nations published a policy brief entitled “Healthy Diet for All in Jordan” advocating for the implementation of crucial policies aimed at transitioning to sustainable food systems and ensuring the availability of healthy diets for all citizens. The policy brief draws upon the findings of the 2020 Global Nutrition Report, which highlights Jordan's dual challenges of micronutrient deficiencies and the co-existence of overweight/obesity, particularly among women, indicating a significant gender disparity in nutrition. The policy brief notes that Jordan has already ratified the UN Covenant on Economic, Social, and Cultural Rights, and has established a National Strategy for School Health 2018–2022 and a National Food Security Strategy 2021–2030. Additionally, the country plans to formulate a national nutrition strategy in the near future (Jordan Times, 2021).

In conclusion, the focus on physical fitness and appearance in gifted learners in Jordan and the Arab world is limited, with a greater emphasis placed on academic and intellectual abilities. Nevertheless, various initiatives and programs have been established to promote physical fitness and healthy lifestyles among school-aged children.

3.2.2. Actional learning capital

Ziegler and Baker (2013) conceptualize actional learning capital as an individual's cumulative capability to engage in various actions. This encompasses a broad range of competencies, including but not limited to swimming, dancing, musical instrument proficiency, and proficiency in reading and mathematics. In this context, we endeavor to assess the effectiveness of gifted education in Jordan, encompassing an analysis of the performance of the country's top students in international educational assessments such as PISA and TIMSS, as well as their recognition through awards or prizes in international competitions.

The formal system of education provides services for gifted students, such as the MOE accelerated program, resource rooms program, and those offered by special schools for gifted students (e.g. King Abdullah II Schools, Jubilee School. etc). In addition, several services are offered in the term of competitions for reading, mathematics, sciences, and technology, such as the Jordan Competition Programming and the Jordanian Olympiad in Informatics (Annual national contest, supported by the Career Guidance Office of the King Abdullah II Fund for Development, for secondary school students, where the winners get selected to represent Jordan in International Olympiad Informatics), and only five Arab countries could participate (German Jordanian University GJU, 2016). Another example is the Jordan Schools Arabic Debate Championship organized by the Jordanian MOE. In the first competition that took place in 2020, 800 students representing 200 schools in Jordan competed in the championship (Qatar Debate Center, 2020). Moreover, the Jordan Young Scientists (JoYS), is a newly introduced national initiative by the Embassy of Ireland and several governmental bodies, which aimed to encourage secondary school students to work on innovative projects in the following four categories: Science, engineering, mathematics, and technology (Al Muheisen, 2022b). In 2020, the Innovation for Creativity Development Association (ICDA) joined forces with the Innovation and Entrepreneurship Center/ University of Jordan to launch the Innovation and Entrepreneurship Program (IEP). This program was created to cater to the talented youth of Jordan, between the ages of 14 and 19 years (WCGTC, 2020).

At the national and regional levels, Jordanian universities and societies, hold annual competitions and awards for outstanding and gifted students. Examples of these awards and competitions include the El Hassan Bin Talal award for scientific excellence, the Princess Sumaya University for Technology (PSUT) competition for photography, filmmaking, and graphic design, the English-Language Olympics (ELO) at various Jordanian universities (Jordan News, 2022), and the Sumo Robotics Competition among Jordanian universities. Numerous Jordanian universities have received recognition for their achievements in these competitions. For instance, a team from the Department of Chemical Engineering at the Jordan University of Science and Technology (JUST) won first prize in the Middle East region at the Third Regional Competition for chemical cars in (QS-GEN, 2019). The University of Petra received first prize at the Fifth-Year International Competition for the Reconstruction of Destroyed Palestinian Villages (QS-GEN, 2021). Additionally, a team from PSUT emerged as the winner of the sixth edition of the Huawei ICT Competition in the Middle East and Central Asia in (Jordan Times, 2022b). These accomplishments demonstrate the remarkable talent and capabilities of Jordanian students in various fields.

At the national and regional levels, several Jordanian universities, schools, and societies hold annual competitions and awards for gifted students, such as the El Hassan Bin Talal award for scientific excellence, (Petra, 2022) Princess Sumaya University for Technology (PSUT) for photography, filmmaking, and graphic design competitions, the English-Language Olympics (ELO) at Jordanian universities (Jordan News, 2022), the Sumo robotics competition among Jordanian

universities. Jordanian universities have won regional prizes and awards, including first prize at the Third Regional Competition for chemical cars by the Department of Chemical Engineering at the Jordan University of Science and Technology in 2019, first prize at the Fifth-Year International Competition for the Reconstruction of Destroyed Palestinian Villages by the University of Petra, (QS-GEN, 2021) and the sixth edition of the Huawei ICT Competition in the Middle East and Central Asia by a team from Princess Sumaya University for Technology in (Jordan Times, 2022b). The International Center for Digital Approaches (ICDA) has been instrumental in organizing the Future Scientists Fair, in collaboration with the University of Jordan and the MOE, since 2014. In 2018, ICDA established a cooperative agreement with the LUMA Center-Finland (Science and Technology Network of Finland Universities), which entailed conducting the Jordan Level of the International LUMA StarT competition and nominating the best team to represent Jordan at the international level. The Jordanian teams won one of the grand prizes in the years 2018–2019 and 2020, enabling the winning teams' teachers and students to participate in the international symposium and gala held in Finland (WCGTC, 2020). However, certain fields, such as the arts and music, continue to experience a deficit in educational provision within the Jordanian school system. The universities do not produce a sufficient number of music teachers to meet the demands of the schools, leading to a lack of qualified individuals to instruct music education. Furthermore, there is a marked absence of productive collaboration between universities and the MOE about the placement of music teacher graduates in educational institutions. As a result, music education in both public and private schools is considered to be in a precarious state (Alzyoud, 2021).

In the international arena, Jordanian educational institutions participate in various competitions and Olympiads aimed at gifted students. There has been a notable rise in the number of Jordanian students who have been recipients of awards and medals from organizations such as the International Computer Fair and Seminar (COFAS) competitions in information technology (Shahin, 2010), the International Mental Arithmetic Competition (Al Muheisen, 2022a), the international UCMAS (Universal Concepts of Mental Arithmetic System) (Ammon News, 2016), and the Global Robotics Competition (Teller Report, 2022). In 2019, Jordan participated in the annual StarT International Award organized by the LUMA Centre Finland. Out of the numerous entries, two teams from Jordan were ranked among the top ten in the category of Teachers' Best Educational Practices, while two other teams of students were recognized as being among the top ten Internationally Most Distinguished Science, Technology, and Mathematics-related Projects. The grand prize was awarded to the Jordanian students' team for their project on a flash flood alert system (WCGTC, 2020). The organization of the competition at the Jordanian level was facilitated by the Innovation for Creativity Development Association (ICDA), which serves as the representative of the LUMA Centre Finland in the International StarT Project. This competition is held annually in collaboration with the MOE and the University of Jordan. Additionally, ICDA organized a national scientific camp for gifted students and teachers in conjunction with the German Jordanian University (WCGTC, 2020).

Despite these achievements, empirical studies have indicated that Jordan's students score below the international averages in international assessments such as the Program for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS) in the domains of mathematics, sciences, and reading. According to PISA results, approximately 1% of Jordanian students were top performers in reading (OECD average: 9%), 1% in mathematics (OECD average: 11%), and 1% in science (OECD average: 7%) (OECD & PISA, 2018). However, when compared to the other four Arab participating countries, Jordanian students performed relatively well in the aforementioned subjects, and their performance was in line with select countries within the same income classification as Jordan (operation and Development OECD & Programme for International Student Assessment PISA, 2018).

The classification of students based on their socioeconomic capital into advantaged and disadvantaged learners has been established by international assessments such as PISA and TIMSS (Kelly et al., 2020; operation and Development OECD & Programme for International Student

Assessment PISA, 2018). Syrian or Palestinian refugees living in camps in Jordan are also considered to have low socioeconomic capital. Despite the significant gap between advantaged and disadvantaged students' scores in Jordan, both groups perform below international averages. The latest TIMSS 2019 and PISA 2018 results showed a significant difference in learning outcomes between students in private or UNRWA schools and their public school counterparts, with non-public schools outperforming public schools by approximately one-grade level in all subjects. According to school principal reports, the poor infrastructure and lack of qualified teaching staff and educational materials negatively impact learning outcomes in Jordanian public schools (Kelly et al., 2020; operation and Development OECD & Programme for International Student Assessment PISA, 2018).

Jordan's participation in the WorldSkills Competitions, formerly referred to as the International Vocation Training Organization, is comparatively limited. The WorldSkills Competitions have been held annually as a global showcase of professional skills since 1940 (WorldSkills, 2017). The scarcity of Jordanian students in these competitions may be due to a variety of factors, including a lack of support and resources for the vocational sector, an inadequate emphasis on vocational education, and a shortage of support from government and educational organizations.

3.2.3. *Telic learning capital*

Telic learning capital refers to the anticipated long-term and short-term objectives that an individual sets for themselves. These objectives are the desired outcomes that a person aims to attain through their actions and practices (Al-Hroub, 2022; Ziegler & Baker, 2013).

Jordan places a strong emphasis on gifted education, recognizing the importance of intellectual and professional development in shaping a thriving society (Heilat et al., 2019). In Jordanian society, some careers are considered to be of high status and are thus accorded great respect. These careers span a diverse array of fields, displaying the breadth of competencies that are valued within the country, including, but not limited to, medicine, engineering, information technology, law, and the finance sector (Sa'd, 2007). Despite the emphasis placed on education in Jordan, students, including highly gifted and talented, are often influenced by cultural and parental gender biases in their career choices. The country exhibits a significant gender disparity among the PISA participants, with girls consistently outperforming boys in all subjects assessed. In 2018, the largest gender discrepancy was observed in reading, with girls outperforming boys by a margin of 51 points, which is equivalent to over one grade level. The career aspirations of high-performing students in mathematics and science also differ significantly between boys and girls in Jordan. Approximately 25% of high-performing boys expect to work as engineers or science professionals by the age of 30, compared to 9% of girls. Meanwhile, two-thirds of high-performing girls aspire to work in health-related professions, and three in seven high-performing boys expect to do so. A mere 2% of boys and an insignificant proportion of girls in Jordan envision a future in the field of ICT (operation and Development OECD & Programme for International Student Assessment PISA, 2018). These cultural and gender biases can also impact students' motivational levels, as demonstrated in a study conducted by Al-Dhamit and Kreishan (2016). The study found that parental control negatively impacted the motivation levels of 122 gifted students aged 15 to 18 in Jordan. The results highlight the importance of considering the influence of parental control in (de)motivating gifted students.

The career aspirations and life goals of gifted adults were the focus of a recent study conducted by Katanani and Sakarneh (2021). The study analyzed the significance and attainment of life goals among alumni of Jubilee School graduates in Jordan, with ages ranging from 26 to 41. The findings indicated that all life goals were deemed to be of significant importance, with self-development as the primary life-goal, followed by profession and work, life partner, and family. Meanwhile, pleasure and entertainment were ranked as the least important. No significant differences in the importance of life goals were found based on gender.

3.2.4. Attentional learning capital

Attentional learning capital encompasses the resources and strategies an individual utilizes to direct their focus toward learning, such as the time available for learning and the use of intentional attention-focusing techniques (Ziegler & Baker, 2013). Despite the significance of attentional learning capital, there is a lack of research and information on this topic in Jordan. In particular, the extent to which gifted students allocate time and attention to developing their potential, and the time spent on individual talents, is unknown. However, it is widely acknowledged that students in Jordanian schools struggle to find leisure time due to the intensive nature of academic curricula and the increasing amount of homework assigned, particularly at the secondary school level. This limits the ability of gifted students to nurture and refine their skills and talents.

3.2.5. Episodic learning capital

Episodic learning capital consists of action patterns that are based on the learner's goals and the conditions in which they operate. It distinguishes itself from actional learning capital by its incorporation of both the available actions and developmental and learning goals, as well as contextual elements (Ericsson et al., 2006). Consequently, it plays a crucial role in the advancement of gifted students (Ziegler et al., 2017).

In this regard, we explore the views and experiences of gifted individuals in the Jordanian education system and the factors that shape their learning experiences. Two recent studies by Al Dababneh and Al-Zboon (2017) and Alodat et al. (2020) offer valuable insight into this topic. The former study indicated that gifted resource-room teachers, private school teachers, and those with limited teaching experience tend to hold stronger beliefs about creativity as compared to regular classroom teachers and those with greater experience in government schools. The latter study investigated the underlying factors behind the use of academic self-handicapping strategies by high school gifted students. The results showed that a combination of environmental and personal/cultural factors contribute to the use of such strategies, including strict parental styles, intense school competition, social image, and self-concept. The study highlights the specific characteristics of Jordanian society, particularly the strong parental involvement in academics, particularly for gifted students. In conclusion, the significance of teacher beliefs, attitudes, and environmental factors in shaping the learning experiences of gifted students in Jordan cannot be overstated. Addressing these factors is crucial in creating a supportive and enriching learning environment for gifted students, promoting their growth and development, and helping them reach their full potential.

4. Conclusion and implications

Based on the analysis of the educational and learning capitals, several implications can be drawn concerning the main challenges to gifted education in Jordan. In Jordan, there are several challenges and concerns in the field of gifted education. The main issues include the absence of budget allocation for operational expenses, the lack of clear criteria or standards for the distribution of gifted education institutions, the need for greater structure and oversight in the resource rooms program, the shortage of financial support for research initiatives, the reliance on western intelligence and psychometric scales for student identification, the discrepancy between theory and practice in the definition of giftedness, and the need for professional in-service training for teachers. The provision of gifted education in Jordan faces complexities in both educational and learning capitals, encompassing economic, cultural, social, didactic, organismic, actional, telic, attentional, and episodic components.

Based on the information provided, the following recommendations and implications can be provided for improving economic educational capital in Jordan: First, it is recommended that the government increase its expenditure on education. The current budget allocation of 3.2% of GDP for education may not be sufficient to fully support gifted education programs, particularly the Resource Rooms program. Increasing the government's investment in education could help ensure adequate support for these programs, allowing more students to receive the resources they need to succeed. Second, there is a need to promote professional and academic programs for gifted

students. While universities in Jordan already provide pre- and in-service programs for these students, more can be done to encourage and support these programs. This could include promoting collaborations between universities and schools, providing funding for research and development, and offering teacher training and professional development opportunities. By providing more opportunities for gifted students to learn and grow, they can reach their full potential and make a greater impact on the world. Third, access to gifted education must be expanded for disadvantaged students. There are currently various organizations, such as The Royal Hashemite Court and the Eqbal Investment Company scholarships that provide financial support for gifted students from disadvantaged backgrounds. Expanding these initiatives and creating new programs can help increase access to gifted education for a wider range of students, regardless of their socio-economic status. This will help to create a more equitable and inclusive education system, where all students have the opportunity to succeed.

Fourth, it is important to foster innovation and creativity among gifted individuals. The Al Hussein Fund for Excellence (HFE) provides funding for innovative and creative individuals and projects. Encouraging similar initiatives and programs can help promote excellence and foster innovation among gifted individuals in Jordan. This will help to drive progress and growth in the country, as well as provide a platform for gifted individuals to make their mark on the world. Fifth, the effectiveness of gifted education programs must be evaluated regularly. Evaluations of programs such as the King's Academy Summer Enrichment Program and the programs at Al-Manhal International Schools can help identify areas for improvement and ensure that these programs are effective in meeting the needs of gifted students. This will help to ensure that these programs are continuously improving and delivering the best possible outcomes for students. Sixth, both infrastructure and cultural educational capital are crucial in facilitating education and learning opportunities in Jordan. While the country has made significant strides in strengthening and modernizing its education system, more work is needed to explore cultural views and attitudes towards giftedness, with a focus on understanding the cultural views and attitudes toward giftedness among Jordanian teachers and students, and developing a Jordanian cultural definition of giftedness based on the empirical research done in Jordan.

In order to improve the cultural and social educational capital of learners in Jordan, several key recommendations must be taken into consideration. Firstly, reassessing cultural values is crucial in promoting a positive perception of vocational programs and manual labor. This can be achieved through education campaigns that highlight the importance of these programs and the positive impact they have on society.

Additionally, the identification of gifted students needs to be improved. This can be done by defining and redefining what it means to be gifted, encompassing a wide range of talents and abilities, and training teachers to identify and support gifted students. Furthermore, engaging parents, teachers, and advocacy organizations in the education process can strengthen social educational capital. This can be achieved through providing resources and training for parents and teachers and creating opportunities for collaboration between these groups and the education system. Furthermore, incorporating a diverse range of perspectives and experiences into the education system is also important in creating a more inclusive and culturally diverse education system. This can be achieved by highlighting the contributions of underrepresented groups and creating opportunities for students to learn about different cultures. Finally, promoting interdisciplinary and hands-on learning opportunities can enhance the educational experiences of students and foster critical thinking and problem-solving skills. These recommendations, if implemented effectively, can contribute towards creating a more well-rounded and culturally diverse educational capital among learners in Jordan.

With regards to the didactic educational capital for gifted students in Jordan, there is a need to enhance the educational experiences of gifted students in the resource room program, it is important to ensure that these rooms are equipped with structured enrichment materials and that teachers are

provided with proper supervision. Also, the King Abdullah II Schools for Excellence need to incorporate more structured enrichment activities that foster students' personalities, leadership, and creative abilities. The emphasis on high achievement, particularly for twelfth-grade students, should also be reduced. Further, the teacher training programs offered at Jordanian universities for special education should offer specialized courses on the education of gifted students. Adapting teacher training to include a greater focus on giftedness and talent is crucial in ensuring that gifted and talented students in Jordan receive the support they need to reach their full potential (Aladwan, et al., 2022; Alkhazaleh, 2020; Almaharmah, 2009; Al-Rabee, 2020; Aqel & Alqamash, 2022). By identifying these students early, providing them with individualized instruction, and changing attitudes towards giftedness, Jordan can ensure that its education system is inclusive and beneficial for all students. Additionally, there is a need to evaluate the effectiveness of different educational settings for gifted students, such as resource classes, general education classrooms, and special programs (acceleration and enrichment). This will provide insights into the most effective way to provide services for gifted students within the public school framework.

In relation to the learning capital, several implications and recommendations can be drawn. First, to promote physical fitness among students, it is important to create a culture of physical activity and healthy habits within the school community. This can be achieved by encouraging students, teachers, and staff to participate in physical activities and healthy habits, and by promoting these activities through events, campaigns, and other initiatives. Second, it is important to encourage universities, schools, and societies to hold annual competitions and awards for outstanding and gifted students. These competitions can serve as a platform for students to showcase their talents and abilities and can help to recognize and celebrate their achievements. Second, there is a need to analyze the performance of top students in international educational assessments and competitions, and by using this information to inform the development of effective programs and services for gifted students. Finally, to establish collaborative relationships between universities, schools, and relevant organizations to advance the promotion of gifted education competitions. Such partnerships can effectively coordinate and facilitate the annual organization of competitions for gifted students. Furthermore, a concerted effort to disseminate information about these competitions through various media channels and educational platforms can enhance their visibility and attract increased participation from students, teachers, and the broader community. The involvement of accomplished professionals, successful alumni, and influential community leaders in the planning and execution of these competitions can further elevate their prestige and draw the attention of even more talented students.

In conclusion, the above recommendations are important for the education system in Jordan, and they can help to ensure that students are equipped with the skills and knowledge needed to succeed in the 21st century. By increasing government expenditure on education, promoting professional and academic programs for gifted students, expanding access for disadvantaged students, regularly evaluating program effectiveness, promoting physical fitness, encouraging healthy diets, enhancing gifted education, offering services to gifted students, and promoting gifted education competitions, schools, and educational organizations can play a vital role in shaping the future of education in Jordan.

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