



RESEARCH ARTICLE

DIFFERENCE IN MORAL INTELLIGENCE DIMENSIONS, LEADERSHIP SKILLS, ACHIEVEMENT  
MOTIVATION AND SELF-EFFICACY AMONG SAUDI MIDDLE SCHOOLS' GIFTED STUDENTS

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ABSTRACT

**Objective:** To evaluate the difference in moral intelligence dimensions, leadership skills, achievement motivation and self-efficacy among Saudi Middle Schools' Gifted Students. **Methods:** This study included Saudi middle schools' gifted students in Makkah, Saudi Arabia. It assessed the difference in moral intelligence, leadership skills, achievement motivation and self-efficacy among the three levels of Saudi middle schools' gifted students. Validated and piloted self-administered questionnaires were used for data collection. Simple random sampling technique was used to select 122 out of 733 male gifted students in 89 schools in Makkah, Saudi Arabia. Data were analysed using SPSS. **Results:** The study included 46, 42, and 34 first, second and third level middle school students respectively. In the moral intelligence scale, self-control ( $4.225 \pm 0.463$ ), tolerance ( $3.899 \pm 0.515$ ) and respect ( $3.666 \pm 0.535$ ) had the highest score. Saudi middle schools' gifted students were rated moderate in the leadership skills, achievement motivation and self-efficacy scales. The third level students demonstrated significantly (0.010) higher mean score ( $176.24 \pm 17.280$ ) than the first ( $174.98 \pm 20.004$ ) and second ( $164.95 \pm 16.420$ ) level students in the leadership skills scale. The overall score in the moral intelligence dimensions varied significant ( $P = 0.009$ ) across the three levels. The third level had the highest mean rank (74.12), followed by the first (63.32) and the second (49.30) level. However, differences in self-efficacy and achievement motivation were not significant. **Conclusion:** Third level Saudi middle schools' gifted students demonstrated significantly higher mean score in the moral intelligence, and leadership skills scales. There were no significant differences in self-efficacy and achievement motivation between the three levels.

INTRODUCTION

Giftedness is considered as a blessing bestowed upon a few individuals from Allah, the Almighty Creator. These individuals if recognized and nurtured attain unusual excellence and exhibit superiority in one or more aspect of life. People who are gifted are extremely endowed with talents and eventually become influential scientists, philosophers, inventors, reformers, and innovators that drive human civilization (Al-Surur, 2003). In humans, moral intelligence is a key to central intelligence because it serves as a compass for other forms of intelligence (Ackerman, Beier and Boyle, 2002). Thus, Moral intelligence encompasses identifying problems, setting targets, choosing and taking appropriate actions, and persevering (Lennick and Keil, 2008). Borba (2005) and Pana (2006) posited that moral intelligence influences the manners and actions of gifted students. Good moral intelligence is described as a desirable quality that encompass compassion, conscience, discipline, reverence, benevolence, forbearance and justice (Borba, 2001).

Gedney (1999) concluded that intelligence is a predictor of good leadership skills although it cannot be inferred that smart individuals almost always emerge as the best and most efficient leaders. Intelligence and leadership are qualities that are correlated (Kouzes and Posner, 2003). Leadership skills are traits imbued in gifted individuals (Chan, 2000; Bisland, 2004). Leadership qualities and achievement motivation has consistently been included in the definition of gifted students (Stephens and Karnes, 2000). Leadership skills of gifted students as a research discipline appeals many researchers in this field (Rahimi, 2011; McGregor, 2010; Davis and Rimm, 2004). In Saudi Arabia, the researcher observed that there is an increased focus on the concept of giftedness and gifted students as demonstrated in recent studies. In fact, Saudi Arabian researchers have studied the concepts of giftedness and ways of recognizing gifted students at schools and universities. In addition, educational policies have provided support towards designing special curriculum and programs (Al-Bawardi, 1988). Teachers and parents of gifted students participate in developing moral, psychological, social and

spiritual aspects of the student's life. The students are taught learning, leadership skills, achievement motivation and other abilities (Jarwan, 2011). However, Saudi middle schools' gifted students are confronted with several challenges that affect their achievement motivation, hinder their ability to develop leadership skills and the overall outcome of learning. Rahimi (2011), McGregor (2010), and Clarken (2009) posited that there is a significant correlation between moral intelligence and leadership skill and successful leaders are certainly presented with moral choices. Beheshtifar (2011) also concluded that moral intelligence contributes to the development of leadership skills. Najafian (2011) indicates that increase in moral intelligence results in a corresponding increase in achievement motivation among gifted students. Actually, students have impact on creating students' high moral intelligence and desirable achievement motivation. Virtues of moral intelligence are missing in Saudi Arabian gifted education program.

These virtues include empathy, conscience, self-control, respect, kindness, tolerance and fairness need to be inculcated in the mind of gifted students. There is need also for gifted students to assess and prioritize needs of each dimension of moral intelligence and to practice leadership (Borba, 2001). Therefore, these virtues are important in forming moral intelligence especially when related to leadership skill for gifted students. This is because gifted students need to be taught the ability to regulate their thoughts and actions to be good leaders expected to be successful in giving counsel and making decisions, and promotes moral intelligence among Saudi community (Lennick and Kiel, 2008). The dimensions of moral intelligence are important parts of Islamic virtues. Building positive relationship between human in real life is an important values. This lead human being to good behaviour distinguishing what is right from what is wrong and avoid bad things and do the desirable deeds (Nasr, 2002). In addition, it urges individuals to bear responsibility by treating all of creation with honor and dignity. Therefore, this subject should be studied in Islamic context so that possible findings can be applied in the Saudi context (Ibn-Humaid, 2012). To evaluate the difference in moral intelligence dimensions, leadership skills, achievement motivation and self-efficacy between the three levels of Saudi Middle Schools' Gifted Students

## METHODS

**Research Design:** This was a cross sectional study conducted among Saudi middle schools' gifted students in Makkah, Saudi Arabia. The study evaluated the moral intelligence, self-efficacy, leadership skills and achievement motivation of gifted students using a self-administered questionnaire.

**Research Population:** Data from Makkahs' Centre for Male Gifted Students revealed that there are 733 male gifted students in 89 schools in Makkah, Saudi Arabia, and this make the study population (MCMG, 2016). The age range of these students was between 13 and 15 years. The Stoker formula was used to determine the research sample size (122 male gifted students) (Stoker 1984). Simple random sampling technique was used to select study sample. This involves making a list of all Saudi middle schools' gifted students in Makkah and assigning sequential number to each student. A random number generator (Research randomizer) was used to select the sample.

**Research instruments:** The study instruments were adopted from previous studies.

**Moral intelligence scale:** Moral intelligence was evaluated using the scale developed by Al-Naser (2009) which was validated in Arab countries. Al-Naser employed the seven virtues determined by Borba to build these items on the scale. These qualities are empathy, conscience, self-control, respect, kindness, tolerance, and fairness.

**Leadership skills scale:** Leadership skill was measured using the leadership skill scale developed by Benzahi (2015). This scale measured eight different skills which are communication, planning, time-management, empathy, decision-making, conflict-management, self-confidence, and problem-solving.

**Self-efficacy scale:** Self-efficacy was assessed using the self-efficacy scale developed by Al-Rababeh (2013). It consists of 27 items which measure the student's self-efficacy within the class, the extent to which tasks are performed, and the extent of the student's readiness.

**Achievement motivation scale:** Achievement motivation is measured using the achievement motivation scale which was developed by Al-Ghamdi (2009). This scale comprised of 80 items that measure ten different dimensions. To ensure validity of the scales, they were delivered to 11 arbitrators who work as educators in different educational colleges in Arab universities and Arabic language teachers. The agreement of 80% was used as a standard upon which the items can be kept as they are or adjusted. The arbitrators were asked to give their suggestions and feedback regarding the items' formation of language; clarity, linguistic appropriateness, the need of amendment, meaning clarity, and the extent to which an item belongs to the dimension and the scale, any other suitable information or amendment. The validated scales were pre-tested among 30 randomly selected students from al-Yamama middle school in Makkah. This school was situated in the study area and has similar attributes with the schools that participated in the main study. These students were eventually excluded from the survey. Although, the Moral intelligence, self-efficacy and Leadership skill scales has been validated and piloted (al-Naser, 2009, Benzahi, 2015 and Al-Ghamdi, 2009, Al-Rababeh, 2013) the pre-test was conducted because of difference in setting and levels. The Cronbach's alpha for the Moral intelligence, self-efficacy, Leadership skills and achievement motivation scales were 0.861, 0.899, 0.688, and 0.823 respectively.

**Data collection:** Data were collected using self administered questionnaires. The questionnaires were distributed to the study participants. A 5-point differential scale ("always," "often," "sometimes," "rarely," and "Never") was used to assess items in the moral intelligence, self-efficacy, leadership skills and achievement motivation domains. This scale was transform into scores with 5 and 1 point assigned to "always" and "never" respectively. The mean scores were categorized as follows: 1.00 – 2.00 (very low), 2.01 – 3.00 (low), 3.01 – 4.00 (moderate), and 4.01 – 5.00 (high); based on Kabilan (2014).

**Data analysis:** Data were analysed using SPSS. Categorical data were represented as frequency and percentages while continuous data were described using mean and standard deviation. Normality of the continuous data was tested using graphical methods (histograms, boxplots, Q-Q-plots),

numerical methods (skewness and kurtosis indices), and formal normality tests (Shapiro-Wilk test, Kolmogorov-Smirnov). ANOVA was used to determine the difference between the four levels of academic achievement for parametric variables. Also, MANOVA was employed to find out the differences between three or more groups in different types of variables (parametric and non-parametric). Kruskal Wallis test was used to find out the difference among groups for non-parametric variables.

## RESULTS

**The three levels of middle schools' gifted students:** Saudi Middle Schools' Gifted Students are categorized into three levels: first, second and third represented by 46 (37.7%), 42 (34.4%) and 34 (27.9%) students respectively. Academic Achievement of Gifted Students was grouped into four: B-, B+, A- and A+. The highest academic achievement was A+ which represents 60.7%, followed by A- (27.9%), B+ (9%) and B- (2.5%).

**Table 1. Mean scores for Moral Intelligence Dimensions**

Dimensions	Mean	Std. Deviation
Empathy	3.418	0.484
Conscience	3.625	0.453
Self-control	4.225	0.463
Respect	3.666	0.535
Kindness	2.570	0.721
Tolerance	3.899	0.515
Fairness	2.665	0.664

**Moral intelligence dimensions:** Moral intelligence had 7 dimensions and self-control ( $4.225 \pm 0.463$ ), tolerance ( $3.899 \pm 0.515$ ) and conscience ( $3.625 \pm 0.453$ ) had the highest mean score. Respondents demonstrated moderate level of self-control ( $4.225 \pm 0.463$ ), tolerance ( $3.899 \pm 0.515$ ), conscience ( $3.625 \pm 0.453$ ), respect ( $3.666 \pm 0.535$ ) and empathy ( $3.418 \pm 0.484$ ) while fairness ( $2.665 \pm 0.664$ ) and kindness ( $2.570 \pm 0.721$ ) had low mean scores. Table 1 summarizes the mean and standard deviation of the study respondents for the items in the moral intelligence scale.

**Leadership skills of gifted students:** The leadership skills scale had 46 items and item 33 "*I feel comfort when achieving my work on time*" demonstrated the highest mean score ( $4.66 \pm 0.711$ ), followed by item 4 "*I usually enjoy contacting others*" ( $4.53 \pm 0.805$ ) and item 29 ("*I show commitment to studying times*;"  $4.31 \pm .834$ ) and item 38 ("*I get happy for the success of one of my classmates*;"  $4.31 \pm 0.873$ ). Item 16 ("*I don't feel unable to deal with the others*") had the lowest mean score ( $2.33 \pm 1.102$ ). Table 2 demonstrates the mean and standard deviation for the items on the leadership skills domain.

**Self-efficacy levels for gifted students:** In the self-efficacy scale, item 22 (*I think I am able to get good marks in tests and scholastic tasks*) had the highest mean score ( $4.60 \pm 0.676$ ), followed by Item 21 "*I pay attention to the teacher when there are difficult topics in a lesson*" ( $4.54 \pm 0.605$ ), and item 14 "*I have the ability to succeed in scholastic tasks that I concentrate on*" ( $4.47 \pm 0.763$ ). The lowest mean scores were observed in item 8 (*I believe levels of tests are beyond my abilities*;  $1.97 \pm 1.128$ ) and item 6 (*I doubt my scholastic abilities*;  $2.06 \pm 1.187$ ). Always and often are the most common frequent students' responses about self-efficacy.

Table 3 shows the mean scores and standard deviations for the items in the self-efficacy domains.

**Achievement motivation levels for gifted students:** There were 80 items in the achievement motivation scale. The results indicated that item 1 (*I feel great desire to excel*) had greater mean score ( $4.79 \pm 0.562$ ). This was followed by item 57 ("*I feel satisfied when I do my work fast and well*;"  $4.68 \pm 0.633$ ) while items 35 ("*I stop doing my work when facing difficulties*;" demonstrated the lowest mean score ( $1.98 \pm 1.036$ ), as shown in Table 4.

**Difference in moral intelligence dimensions based on the three levels of saudi middle schools' gifted students:** The results demonstrated that third level students had higher mean scores in empathy, conscience, self-control, respect, kindness and tolerance than other levels. However, first level students had greater score in fairness compared to the second and third levels. See Table 5 Bonferroni test was utilized to find out the difference between the three levels of Saudi middle schools' gifted students. Significant difference was found between third and first levels with empathy. Also, there was significant difference between second and third levels for self-control with higher mean in the third level, as shown in Table 6. ANOVA test showed that there were significant (0.010) differences in the mean scores in the leadership skill domain across the three levels of middle schools' gifted students. The third level had the highest mean score ( $176.24 \pm 17.280$ ), followed by the second ( $164.95 \pm 16.420$ ) and first ( $174.98 \pm 20.004$ ) level; as shown in Table 7. The overall score in the moral intelligence domain varied significant ( $P = 0.009$ ) across the three levels of middle schools' gifted students. The third level had the highest mean rank (74.12), followed by the first (63.32) and the second (49.30) level. However, differences in self-efficacy and achievement motivation were not significant across the three levels, as shown in Table 8.

## DISCUSSION

The results of the present study illustrates that third level Saudi middle schools' gifted level students had greater mean scores in empathy, self-control and tolerance domains compared to students in other levels. This means that gifted students of the third level have more empathy than the other levels and can recognize pain and show towards other peoples suffering. Their level of empathy will help them in fostering awareness, creating an emotional vocabulary, enhancing sensitivity towards other people, and developing varied points of view in empathy as mentioned by Borba (2001). In addition, empathy is encouraged in Islam in chapter 9 verse 128 of the Holy Qur'an describing beloved Prophet Muhammad peace be upon him (Yusuf, 2000). Gifted students of the third level with the help of their level of empathy can have the capacity to control personal feelings and actions to stop internal or external pressures that influence action, emotion, and behaviour. Gifted students of the third level with the help of their level of self-control, they will be able to assess and prioritize needs, think critically before acting, and to practice delay gratification as mentioned by Borba (2001). Islamically, self-control will help them to gain discipline and self-control through observing five daily prayers and fasting in the month of Ramadan as Allah said in the Holy Qur'an chapter 2 verse 183 (Yusuf, 2000). Gifted students of the third level with the help of their level of tolerance would be able to accommodate, welcome and endure in any circumstance, person or action as describe by Borbas' moral intelligence (2001) and Ghazzali (2004).

Table 2. Mean scores and standard deviations for items in the Leadership Skills domain

No.	Items	Mean	Std. Deviation
1	I listen to all of my classmates' reactions carefully	4.03	.823
2	I write down notes of my teachers	3.26	1.198
3	I find no difficulty expressing myself before my colleagues	3.72	1.221
4	I usually enjoy contacting others	4.53	.805
5	My priority is to find a communicative social environment	3.75	1.168
6	I pre-determine my goals	3.91	1.004
7	I plan for everything I do	3.75	.950
8	I plan well to my education future	4.25	.967
9	I don't do anything before thinking in it first	3.69	1.076
10	I like activities that have precise plans	3.75	1.257
11	I work hard to improve my plans	4.12	1.025
12	I feel loving me by the others	3.71	1.016
13	I am satisfied about my body look	4.09	1.150
14	I don't let go for others for no reasons	3.41	1.238
15	I don't feel hesitated in embarrassing situations	3.16	1.222
16	I don't feel unable to deal with the others	2.33	1.102
17	I interfere to solve problems between my classmates when they happen	3.62	1.222
18	I use my personal abilities to solve some stuck problems	3.95	.986
19	I can handle encountering daily problems	3.89	.938
20	I don't find difficulty organizing my thoughts when facing problems	2.93	1.172
21	I collect enough information about the encountered problem	3.80	1.034
22	I think in all different alternatives that may lead to a solution of a problem	3.95	.978
23	I have the ability to choose the right times when making decisions	3.91	.900
24	I usually do the decisions I make	4.05	.801
25	When making any decision, I bear responsibility	4.20	.915
26	I don't hesitate to make a decision	3.56	1.114
27	I think of the consequences when making decisions	3.87	.962
28	I realize the importance of time when doing any work	4.22	.940
29	I show commitment to studying times	4.31	.834
30	I usually ask my colleagues not to waste time	3.25	1.289
31	I forget about other things during school time	3.49	1.144
32	It is difficult to me to get to the class on time	2.83	1.503
33	I feel comfort when achieving my work on time	4.66	.711
34	I usually start my day with work of high priority	3.95	1.112
35	I share the suffering of my colleagues with them	3.42	1.205
36	I help my colleagues to do their research work	3.43	1.246
37	I get upset hearing bad news about my colleagues	3.82	1.076
38	I get happy for the success of one of my classmates	4.31	.873
39	I enjoy sharing activities with my colleagues	4.03	.995
40	I flatter my colleagues when they deserve	4.05	1.051
41	I seek finding solutions for conflicts that happen between my classmates	3.65	1.149
42	I search for solutions for my classmates' conflicts even if that is on my account	3.34	1.296
43	I try to express my thoughts cooperatively	3.75	1.078
44	I try to decrease the strength of conflicts by neglecting them	3.35	1.272
45	I draw my care to lateral topics instead of facing conflict	3.26	1.218
46	I delay facing conflict for a while until it gets controlled	3.55	1.193
	Overall score of leadership skills	171.88	18.635

Table 3. Respondents mean scores and standard deviations for the items in the self-efficacy domains

No.	Items	Mean	Std. Deviation
1	I find difficulties preparing my lessons	2.33	1.124
2	I can do the study plans I have already made	4.10	.847
3	I find a solution to every encountering scholastic problem	3.97	.833
4	When I am encountered by a scholastic topic, I deal with it properly	4.13	.833
5	I have the ability of being patient and responsible facing difficult scholastic topics	3.88	1.041
6	I doubt my scholastic abilities	2.06	1.187
7	I cannot pay suitable effort for the scholastic tasks	2.16	1.157
8	I believe levels of tests are beyond my abilities	1.97	1.128
9	I can control myself during tests	4.08	1.017
10	I face difficulty understanding some important topics during a lesson	2.62	1.138
11	I can write down the important notes during a lesson	3.71	1.182
12	I can explain some scholastic concepts to my colleagues	3.93	1.010
13	I discuss the opinions of the teacher if I saw them unconvincing	3.73	1.233
14	I have the ability to succeed in scholastic tasks that I concentrate on	4.47	.763
15	I believe I can understand any scholastic topic very well if I wanted that	4.28	.973
16	I keep studying even if the scholastic subject was difficult	4.39	.755
17	I understand delivered topics in the class nevertheless how difficult they are	4.28	.785
18	I can concentrate for a long period of time of a lesson	4.14	.826
19	I can concentrate for a long period of time of a lesson	4.16	.988
20	I participate in difficult discussions	3.90	1.007
21	I pay attention to the teacher when there are difficult topics in a lesson	4.54	.605
22	I think I am able to get good marks in tests and scholastic tasks	4.60	.676
23	I don't give up easily when I encounter a scholastic problem	4.26	.916
24	When difficulties encounter me when learning a specific scholastic subject, I try again before asking others for help	4.06	.930
25	I trust my abilities in understanding most of scholastic curricula	4.44	.739
26	I think my performance will be good in curricula in spite of their levels of difficulties and their teachers	4.18	.900
27	I ask the teacher to re-explain concepts and topics that I did not understand properly	4.08	1.025
	Overall score of self-efficacy	102.43	9.58

Table 4. Scores of achievement motivation's outcomes

No.	Items	Mean	Std. Deviation
1	I feel great desire to excel	4.79	.562
2	I reject giving up easily	4.40	1.010
3	I bear responsibility of my deeds	4.34	.756
4	Rewards encourage me to do my best	3.92	1.147
5	My family gave me enough amount of independency since childhood	3.85	1.081
6	Planning for future does not attract my attention	2.66	1.389
7	I am slow when doing my work	2.34	1.155
8	I tend to do what others do	2.87	1.113
9	I enjoy being with individuals who have the same abilities of mine	4.14	1.086
10	I imagine myself prominent a lot	3.31	1.293
11	If I start a work I should finish it	4.44	.728
12	I feel responsible towards others	3.70	1.067
13	My enthusiasm decreases towards work of no financial value	2.53	1.100
14	I decide doing the work without others' interference	3.46	1.107
15	It is better to do a work that is not difficult	3.29	1.175
16	I care for present leaving future to circumstances	2.89	1.228
17	I care about doing work fast nevertheless how good it is done	2.23	1.218
18	It is better to change my mind if it does not go well with others' opinions	2.98	1.223
19	I seek to excel continuously	4.51	.795
20	I fight to get my aim	4.60	.638
21	I care for my work result not only the work itself	4.10	.885
22	I feel pride for what I do at school and in house	4.23	1.011
23	I feel happy when doing something free of surveillance	3.75	1.210
24	I feel upset when my work is compared to others'	3.07	1.347
25	It is hard to me to overcome obstacles threaten my work	2.71	1.040
26	It is not important to set goals	2.10	1.146
27	Works compile because of my delay	2.70	1.198
28	It is hard to feel failure	3.20	1.264
29	I think of the future which prevent me enjoying the present	2.81	1.152
30	I only feel comfort when I finish all my work	4.39	.877
31	I care a lot to do the work best	4.46	.740
32	I admit failure as I admit success	3.48	1.344
33	I feel less active and enthusiast when doing difficult work	2.66	1.148
34	I hate the work when it is full of competition	2.19	1.235
35	I stop doing my work when facing difficulties	1.98	1.036
36	I hesitate a lot before I make decisions	2.95	1.075
37	Fame is my basic aim of any work I do	2.23	1.119
38	I do what I want to do neglecting others' desires	2.85	1.050
39	Successful persons are the makers of life	4.18	1.021
40	Setting goals facilitates doing things	4.28	.973
41	I use all my time in useful things	3.57	1.020
42	I reject competing others	2.13	1.120
43	I feel desperate and frustrated when I face obstacles	2.61	1.131
44	If I fail in my work then it is because of the others	2.03	1.098
45	Excellence is for few people	2.87	1.240
46	I do my work on time with no delay	3.82	.945
47	I don't change my mind even if it contradicts majority thoughts	3.64	.988
48	Encouragement from others make me more willing doing my work	4.20	.950
49	I feel languish when doing my work away from competition	3.29	1.072
50	I solve my problems asking no help from others	3.36	.963
51	Retreatment and giving up make me avoid suffering	2.43	1.253
52	Bearing responsibility annoys me	2.62	1.138
53	I do my best to get my work done in spite of the financial reward	3.79	1.077
54	I feel I do work imposed by my parents	3.44	1.460
55	There is no work without difficulties	3.93	1.066
56	Well-planning is the base of success	4.44	.910
57	I feel satisfied when I do my work fast and well	4.68	.633
58	I feel I am able to do unique work	4.51	.795
59	Competition enhance my energy to get my aims	4.17	1.034
60	Success and failure are linked to coincidence	2.02	1.117
61	I have no patience to finish work that takes long time	2.61	1.229
62	The result of my work is not important to me, what matters is to work only	2.21	1.112
63	I do my work the same way with or without encouragement	3.55	1.143
64	I believe in the saying "what is not going to kill me, will only strengthen me"	3.40	1.183
65	Achievement entails setting determined goals	4.07	1.030
66	I like to make what I do well	4.50	.774
67	I prefer doing hard work	3.57	1.003
68	My enthusiasm increases as I compete with others	4.15	1.010
69	I ask for help when facing difficulties	3.33	1.094
70	Excel does not mean much to me	1.99	1.276
71	I spend a lot of my time in funny and entertaining things	2.98	.983
72	Others should bear responsibility with my in regard to my work	2.11	1.035
73	I do my best to get over all difficulties to get to my goals	4.20	.869
74	I set goals for everything I want to achieve in future	4.03	1.012
75	I do my work fast	3.62	.973
76	I trust my skills and abilities	4.42	.822
77	I like competition and do my best to win	4.34	.898
78	Facing difficulties enhance my will to succeed	4.16	.903
79	What others say about my work does not matter	3.43	1.192
80	My family ties me giving a lot of directions and orders regarding my work	3.47	1.228
	Overall score of achievement motivation	272.72	18.339

**Table 5. means of moral intelligence dimensions based on the three levels of saudi middle schools' gifted students**

Score	Levels of middle schools	Mean	Std. Deviation
Empathy	First	20.04	2.781
	Second	20.12	2.432
	Third	21.62	3.358
Conscience	First	21.87	2.526
	Second	21.17	2.921
	Third	22.38	2.640
Self-control	First	25.26	2.970
	Second	24.55	2.461
	Third	26.47	2.585
Respect	First	18.37	2.947
	Second	17.67	2.544
	Third	18.91	2.353
Kindness	First	9.76	2.884
	Second	10.43	2.520
	Third	10.79	3.255
Tolerance	First	23.74	3.130
	Second	22.45	3.172
	Third	24.09	2.734
Fairness	First	16.30	3.319
	Second	15.64	4.195
	Third	16.00	4.599

MANOVA test

**Table 6. difference of moral intelligence dimensions based on the three levels of middle schools' gifted students**

Moral Intelligence Dimensions	Levels of middle schools	Levels of middle schools	Mean Difference	SE	p value	95% C I	
						Lower Bound	Upper Bound
Empathy	First	Second	-.08	.607	1.000	-1.55	1.40
		Third	-1.57	.643	.048	-3.14	-.01
	Second	First	.08	.607	1.000	-1.40	1.55
		Third	-1.50	.656	.072	-3.09	.09
	Third	First	1.57	.643	.048	.01	3.14
		Second	1.50	.656	.072	-.09	3.09
Conscience	First	Second	.70	.576	.675	-.70	2.10
		Third	-.51	.610	1.000	-2.00	.97
	Second	First	-.70	.576	.675	-2.10	.70
		Third	-1.22	.623	.160	-2.73	.30
	Third	First	.51	.610	1.000	-.97	2.00
		Second	1.22	.623	.160	-.30	2.73
Self-control	First	Second	.71	.576	.653	-.68	2.11
		Third	-1.21	.610	.149	-2.69	.27
	Second	First	-.71	.576	.653	-2.11	.68
		Third	-1.92	.622	.007	-3.43	-.41
	Third	First	1.21	.610	.149	-.27	2.69
		Second	1.92	.622	.007	.41	3.43
Respect	First	Second	.70	.567	.652	-.67	2.08
		Third	-.54	.600	1.000	-2.00	.92
	Second	First	-.70	.567	.652	-2.08	.67
		Third	-1.25	.612	.133	-2.73	.24
	Third	First	.54	.600	1.000	-.92	2.00
		Second	1.25	.612	.133	-.24	2.73
Kindness	First	Second	-.67	.614	.837	-2.16	.82
		Third	-1.03	.650	.344	-2.61	.55
	Second	First	.67	.614	.837	-.82	2.16
		Third	-.37	.663	1.000	-1.98	1.25
	Third	First	1.03	.650	.344	-.55	2.61
		Second	.37	.663	1.000	-1.25	1.98
Tolerance	First	Second	1.29	.649	.149	-.29	2.86
		Third	-.35	.688	1.000	-2.02	1.32
	Second	First	-1.29	.649	.149	-2.86	.29
		Third	-1.64	.701	.064	-3.34	.07
	Third	First	.35	.688	1.000	-1.32	2.02
		Second	1.64	.701	.064	-.07	3.34
Fairness	First	Second	.66	.856	1.000	-1.42	2.74
		Third	.30	.907	1.000	-1.90	2.51
	Second	First	-.66	.856	1.000	-2.74	1.42
		Third	-.36	.926	1.000	-2.60	1.89
	Third	First	-.30	.907	1.000	-2.51	1.90
		Second	.36	.926	1.000	-1.89	2.60

Bonferroni test

**Table 7. Difference in leadership skills based on three levels of Saudi middle schools' gifted students**

Total score	Levels of middle schools	Mean	SD	F value	p value
Leadership skills	First	174.98	20.004	4.743	0.010
	Second	164.95	16.420		
	Third	176.24	17.280		

ANOVA test

**Table 8. Difference in self-efficacy, achievement motivation and overall score of moral intelligence in the three levels of Saudi middle schools' gifted students**

Total score	levels of middle schools	Mean Rank	Chi-square	p value
Self-efficacy	First	63.77	.917	.632
	Second	57.27		
	Third	63.65		
Achievement motivation	First	61.58	3.247	.197
	Second	53.48		
	Third	67.78		
Overall score of moral intelligence	First	63.32	9.465	.009
	Second	49.30		
	Third	74.12		

Kruskal Wallis test

Gifted students of the third level with the degree of their tolerance can co-habit peacefully with their non-Muslim neighbours (Thowfeek, 2015). The present study is consistent with Ibrahim and Al-Mehsin (2016) who evaluated moral intelligence among university students in Egypt and Saudi Arabia. The results revealed that university students in Egypt had higher score in the sympathy domain compared to university students in Saudi Arabia, who in turn had higher score for tolerance. These differences were statistically significant. As the results illustrated that there were no significant differences in the degree of moral intelligence of students between the university students in two countries. The findings of this study are not in conformity with Shehata (2008) who investigated the correlation between moral intelligence and school environment, and family. The results showed that moral intelligence is not influenced by either gender or student's cultural background (village- City).

The outcomes of the present study are in consonance with Obeidi and Ansari (2011) who found that basic sixth students had medium level of moral intelligence. A similar study was conducted by Mohammed (2009) and the author revealed that teenagers aged 13 - 17 years in Baghdad schools had a medium degree of moral intelligence. There are statistically significant differences in moral intelligence in favour of the older age group and females. In contrast, Al-Tai (2010) found that females university students had significantly lower degree of moral intelligence compared to males. The study also found significant difference in leadership skills; however, the differences in achievement motivation and self-efficacy across the three levels of Saudi middle schools' gifted students were not significant. Third level students had higher mean scores than second and first level students. This is because third year students are older and more matured than the other levels. The results of this study are not consistent with Connelly et al., (2000) who conducted a study to find out the association between leadership skills and knowledge with leader performance. Outcomes signify that constructed response measures of key leader capabilities account for variations in leader effectiveness and provides early confirmatory evidence for a fundamental part of the hypothetical model. The problem-solving, social judgment and knowledge domains account for significant differences in leadership capacity greater than cognitive capacity, motivations, and personality.

Preliminary data also proposes that intricate problem-solving skills, social judgment and leader knowledge partly mediate the association between cognitive abilities, motivation and personality and effective leadership. The findings revealed that there is difference in leadership skills between three levels of Saudi middle schools' gifted students. In a similar study, Lee et al., (2006) shows that gifted male students have similar emotional intelligence as the age normative sample, while gifted females had lower emotional intelligence in comparison with the norm group. However, normative sample had lower score in adaptability and higher scores in stress management and impulse control ability in comparison with gifted students.

There are no variations between the programs (academic and leadership) with respect to students's score on the 3 scales. From the theoretical point of view, the findings of this study are related to the situational theory (Grunig, 1997) which assumed that leadership style is depended upon situational variables. The theory proposes that a good leader is able to apply different styles appropriate for different situations. For example when gifted students found themselves in a setting where by the leader is the most well-informed person in the group; gifted students should opt for applying an authoritarian style. In a setting where all members are equally skilled, gifted students as leaders should apply a democratic leadership style (Northouse, 2007). The situational theory best describes the flexibility of leaders and their personalities in various opportunities. Gifted students are able to apply logic, moral intelligence and critically evaluate a situation before arriving at a decision. Logic application, moral intelligence and critical analysis skills are traits often attributed with giftedness (Chan, 2003; Abel and Karnes, 1993). Gifted students are rarely taught leadership skills at primary school level because teachers do not focus on teaching basic leadership skills. This indicates that gifted students acquire leadership training and experiences from the Middle level (Spears and Lawrence, 2002).

## Conclusion

Third level Saudi middle schools' gifted students had significantly higher moral intelligence scores than second and first level students. Third level students had significantly higher empathy than first level students. There was also significant difference in the self-control dimension between the

third and second levels with higher mean score in the former group. Third level students also demonstrated greater scores in the leadership skill domain than the second and first level students. However, there were no significant difference in achievement motivation and self-efficacy across the three levels of middle schools' gifted students.

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