Youth purpose, meaning in life, social support and life satisfaction among adolescents in Singapore and Israel

Mary Anne Heng[1] · **Gavin W. Fulmer[2]** · **Ina Blau[3]** · **Andrew Pereira[1]**

Abstract

Questions about purpose, life meaning, and life satisfaction drive central debates about what good education should look like in schools. This study compares adolescent purposes, life meaning, social support and life satisfaction in Singapore and Israel. Meaning in life refers to finding one's significance; purpose uses this significance in ways beyond self. Key findings showed four purpose clusters for Singapore: no orientation, self-focused, other-focused, and both self- and other-focused. Israeli adolescents were in three purpose clusters without the no orientation group. Israeli adolescents had significantly higher life satisfaction, with no purpose orientation for 18% of Singapore's students having significant negative impact on life satisfaction. Presence of meaning, parents' support followed by teachers' support were positive predictors of life satisfaction. Notably, Israeli students had more life meaning and parental support; Singapore's adolescents had more teacher support but were searching for meaning. Implications for a more human experience of schooling are discussed.

✉ Mary Anne Heng
   maryanne.heng@nie.edu.sg

   Gavin W. Fulmer
   gavin-fulmer@uiowa.edu

   Ina Blau
   inabl@openu.ac.il

   Andrew Pereira
   andrew.pereira@nie.edu.sg

[1] National Institute of Education, Nanyang Technological University, 1 Nanyang Walk, Singapore 637616, Singapore

[2] University of Iowa, Iowa City, IA 52242, USA

[3] The Open University of Israel, 1 University Road, 4353701 Ra'anana, Israel

Introduction

School reforms in many educational systems are driven by performance outcomes. International benchmark indicators such as the Program for International Student Assessment (PISA) have a huge impact on education policy and reform as these drive school systems around the world in preparing students for future economies (Sellar and Lingard 2013). Scholars caution that the performance-focused outcomes of school reforms can narrow the purpose of education (e.g., Biesta 2009; Deng and Gopinathan 2016). Achievement indicators and league tables on "world class" education (Alexander 2010, p. 816) potentially obscure the nature of education at the localized level of students who are the recipients of everyday classroom experiences and whose views are often given short shrift in curriculum policy decisions. Moving beyond the means-ends model of education in which the present criteria for success may not be valid for the future, scholars argue that education should guide students to make important decisions in the future about what they consider useful, successful, and ethical (Willbergh 2015).

To address the health of an education system, educational change scholars (e.g., Biesta 2009; Shirley 2017) call for schools to ask more fundamental, compelling questions about what students make of school to guide students with important questions on purpose and meaning in school and life. Beyond the economic function of schooling, there are calls for a broader, deeper and richer education for a wide range of human talents (Noddings 2015). British educational philosopher, Macmurray (2012) argues that education should be about learning to be a human being. For students to flourish, schools should be deeply human communities that strive beyond organisation efficiency and effectiveness (Fielding 2012a). In these times of high-stakes testing amidst economic survivability and global uncertainty, it is critical for schools to revisit the fundamental and deeper human purposes of education. What does it mean to take the education of students seriously (Fielding 2012b)? What does it mean to take students' learning seriously (Heng 2017)? Shirley (2015) also argues that there is a need to return to the deeper purposes of education to emphasize that education is organized around students' learning, and ultimately their flourishing.

What are schools doing to help students use the knowledge and skills they learn in school in their own lives and aspirations (Noddings 2006)? We know little about what education reforms look like in schools and classrooms and what students make of their school and life experiences. Yet education reform scholars in recent years have called for schools to see students as partners in change and leadership (Hargreaves and Shirley 2009; Zhao 2011), and to consider the complexity of students' learning and lives in the design of meaningful school experiences.

This study asks the fundamental question about what students make of school and investigates the relationship between youth purpose, meaning in life, social support and life satisfaction among adolescents in Singapore and Israel. This is a cross-national study of Singapore and Israel as achieving education systems but within different sociocultural and political contexts. Both are small countries sharing common traits of self-reliance and determination to thrive despite prevailing vulnerabilities

and global tensions (Freeman 2015). Using Singapore and Israel as a mirror and contrast to global experiences, this study provides insights into students' ground-level experiences of school and life and important baseline understanding for educational policy, research and practice.

Singapore and Israel contexts

Singapore has 5.7 million people, approximately 7866 people per square kilometre, comprising 74.4% Chinese, 13.4% Malay, 9% Indian, and 3.2% from other racial groups (Singstats 2019). In Singapore, socialization from a pragmatic-instrumentalist and achievement-oriented culture for an economic imperative overshadows any quest for personal purpose and meaning in life (e.g., Tambyah and Tan 2013).

Israel's population is 9.1 million people with 410 people per square kilometre and its ethnic make-up comprises nearly 74% Jewish Israelis, 21% Arab (mostly Muslim, with a Christian minority), and less than 5% non-Arab Christians and other religions and ethnic groups (e.g., Druzes) (Israeli Central Bureau of Statistics 2019). With a birth rate of 3.13 children per woman, Israel is the highest in the developed world (Bowers 2014). Hence, the Israeli population is relatively young with 28% of the population under age 14, compared to the OECD average of 18.5% and 13% in Singapore.

Education is highly regarded in Singapore and Israel, and both have centralized Ministries of Education. The Singaporean education system has undergone extensive reform to prepare students for success in the globalized economy, focusing on technical rationality that instils performativity and self-organization in response to targets, indicators, and evaluations (Ball 2003; Tan 2008). Yet, a more complex picture emerges when academic indicators are compared with other social and wellbeing indicators. In the PISA 2015 study on students' wellbeing, The Netherlands and Finland both had above-average academic (science) performance and life satisfaction (OECD 2017). In the same comparison, East Asian countries such as China and Korea performed academically much better than the OECD average but with relatively low satisfaction with life. As Singapore and Israel were not part of the study, there is a need for such an investigation. Given Singapore's similar East Asian background, it would not be surprising that similar findings are obtained.

Compared to Singapore, Israeli students' scores in international benchmarks tests are relatively low, and this is primarily attributed to comparatively lower GDP per capita and high proportion of school-age children (Feniger et al. 2012). Israeli educational reforms address global shifts from teacher empowerment and school autonomy toward setting achievement standards to improve students' performance on international benchmark tests in grades 2, 5 and 8 (Feniger et al. 2012). While Singapore has been recognized as a high-performing education system in international education benchmarking indicators, Israel is well-known as a creative, innovative, "start-up" nation with the "highest number of scientists, technologists and engineers per capita in the world, and the third-highest number of patents per capita" (Hussain 2016).

Both Singapore and Israel are small and young nations that arose from adverse circumstances. They have also integrated diverse groups of people to create a common nationhood (Hussain 2016). Since independence, Israel has fought several wars to defend its right as a nation (Goldscheider 2015, 2018). Singapore has been largely at peace with its neighbors, although its independence was fraught with tensions with Malaysia on merger and then separation, racial riots, and economic uncertainty (Koh 2020; Lee 2000). Questions about youth purpose, life meaning, school and life satisfaction are central to debates around the world about good education and what good education should look like in schools. The cases of Singapore and Israel shed light on the tensions of preparing students for success in the globalized economy while educating for an uncertain future.

Youth purpose, life meaning, social support and life satisfaction: Why these matter

In this study, the variables of purpose in life, meaning in life and social support were examined as predictors of life satisfaction (Fig. 1). Research on each of these variables and the associations between the study's variables are described below. The research questions for this study are: (a) What are the comparative levels of youth purpose, meaning in life, social support and life satisfaction among adolescents in Singapore and Israel? (b) How is life satisfaction affected by adolescents' purpose, meaning in life and social support?
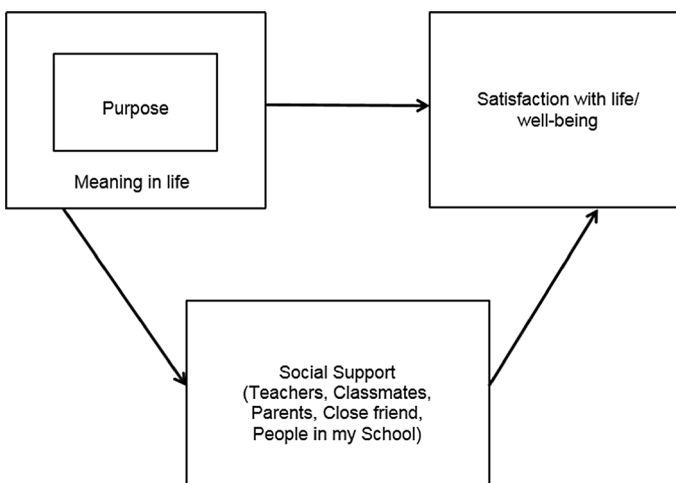

Fig. 1 Variables in the study

Youth purpose

There is an upsurge in international research on youth purpose. The present dominant approach, however, adopts a Western researcher construct and a priori view of purpose eschewing cultural differences (Mariano 2014). There is thus a need for comparable studies into contextual and transnational factors examining purpose across nations and cultures.

From among the varied conceptualizations of purpose in disciplines such as philosophy and psychology, we foreground Damon's (2008) model of youth purpose given its pedagogical affordances for positive youth development. Damon argues that education is less about academic achievement and more about *why* students should care about what they learn. While many adolescents appear to be doing well, Damon notes that far too many seem stressed out, apathetic and lacking a sense of direction. Few know what is troubling these teenagers, except when a chronic failure or major crisis comes to light. Damon (2008) defines purpose as a long-term intention to influence the world in ways both meaningful to oneself and others. Purpose is not a low-level aim like doing well in a test or winning a sports game. Importantly, purpose has an external component beyond personal pursuit to aspire and contribute in ways larger than oneself. Purpose could also be considered as a second-order and meta-level virtue that motivates and moderates a person's performance of other virtues (Han 2015). For Damon, purpose is a "moral compass" (p. 8) for students to discover personal meaning in their work important to their lives and aspirations. For most students, the discovery of purpose may not happen on their own (Damon 2008). This is especially so in the present sociocultural context where a clear framework to help youths understand what is going on in the world is lacking (Moran 2019). To develop prosocial aspirations, adolescents would need help to thread their own life purpose with others' purposes so that they begin to acquire a shared understanding of how the world works. In particular, students would need to learn how to make meaning of their learning experiences and connect these cognitively and emotionally with a vision of how they see their contributions to society (Moran 2019).

US studies (Damon 2008; Moran 2009) consisting of mixed methods utilizing surveys and interviews show that youths (age range between 12 and 22) with clear purpose are in the minority, with only 25% indicating motivation towards prosocial life aims. Most youth show a precursor form of life aim, in which meaning, future orientation, engagement, and/or a beyond-the-self orientation are missing. In contrast, adolescents (mean age of 14) with a sense of purpose show higher levels of life satisfaction (Bronk et al. 2009).

Meaning in life

Meaning in life refers to the significance one makes of one's life (Steger et al. 2006). Meaning in life is the force that makes our experiences comprehensible, directs our efforts toward desired futures, and provides a sense that our lives matter and are worthwhile (Martela and Steger 2016). Simply put, *the meaning of*

life is to find one's gift. The purpose of life is to use this gift for the benefit of both self and others. Research on adolescents has shown that as an existential construct that shapes an individual's worldview and identity development (Erikson 1968), youth are capable of searching for more meaning in life (Steger et al. 2011). The absence of life meaning among adolescents (age range from 15 to 19) is related to poor psychological and physical health in a quantitative survey research study by Brassai et al. (2011). Scholars generally agree that there is no universal concept of meaning of life that speaks to everyone. One's life meaning is individually constructed (Frankl 1965) and is determined by one's value system that gives purpose and meaning to one's being (Wong 1998). A notable gap in the meaning in life literature is that it is unclear what contextual factors related to life events would increase the likelihood of meaning-making (Tavernier and Willoughby 2012), and this is particularly important during the crucial period of adolescence as it is a dynamic maturational period of rapid growth, learning, adaptation and formational neurobiological development (Dahl et al. 2018). What is notable during adolescence are modifiable inflection points for developmental trajectories that influence behavioral, educational and mental health outcomes. Emerging science indicates that adolescence is a time of enhanced growth and a sensitive period of learning about belonging, feeling valued and respected, and also finding a way to make a contribution, which is tied to adolescents' search for meaning and larger purpose (Dahl et al. 2018). While key developmental theories in different epochs may differ, finding purpose and meaning nevertheless remain crucial and integral components for optimal development. For example, Erikson's (1968) psychosocial theory of development seeks to understand the individual's exploration and commitment to a certain identity. In the postmodern context, the process is more dynamic, fluid and dependent on both personal and sociocultural changes (Mayseless and Keren 2014). It is thereby important to understand the sociocultural dimensions that influence students' actions and behaviors (Bransford et al. 2000; Bruner 1990).

Social support

Social support in this study is defined as an individual's perception of general support from people in their social network, which enhances functioning and protects the individual from adverse outcomes (Malecki and Demaray 2002). Social support and coping are positively related to wellbeing (Ben-Zur 2009). Teachers and significant others may serve as exemplars and mentors in helping students sustain wellbeing, develop strong value systems and life goals, and keep life pathways open to support and facilitate the realization of students' aspirations (Bundick and Tirri 2014; Pleiss and Feldhusen 1995). Youth with purpose seek, create, and integrate support into a tailored network to derive purpose-specific benefits from their families and increased opportunities for engagement in purposeful activities (Moran et al. 2013). Hence, young people have agency to appropriate different sociocultural elements to make sense of their lives, shape aspirations and direct actions (Swidler 1986).

Life satisfaction

Life satisfaction is a cognitive and judgmental process assessing a person's quality of life within chosen criteria (Diener et al. 1985). Happiness through hedonic pleasures differs from life satisfaction, which arises through meaningfulness such as using one's gifts to do something significant for the good of others (Magen 1998). Students with both self- and other-oriented long-term aims have clear academic purpose and clear ideas for what they want to achieve in life, and they report the highest life satisfaction (Bronk and Finch 2010). As self-reported life satisfaction reflects societal and economic conditions (Oishi and Diener 2014), we suggest that self-reported purpose, life meaning, social support, school and life satisfaction could serve as fairly reliable indicators of adolescent experiences.

Purpose and meaning are important to life satisfaction as youths develop positive, motivating belief systems leading to higher self-efficacy and school achievement. Purpose in life was associated with greater life satisfaction at adolescence, emerging adulthood stages and adulthood, while search for purpose was only associated with life satisfaction during adolescence and emerging adulthood, but not for adults as it is expected that adults should resolve the search at least to some degree by this stage (Bronk et al. 2009). While presence of meaning was positively associated with life satisfaction, search for meaning had the overall opposite pattern of correlates, although search for meaning was still positively associated with greater life satisfaction for those who already had substantial meaning in life (Park et al. 2010). For students, support from teachers has been associated with students' life satisfaction (Suldo et al. 2006). Hence, while educational achievement is a very common metric in educational research internationally, other important parameters, such as school and life satisfaction, could help educators and policymakers understand how adolescents experience the school curricula and school culture (Heng et al. 2017).

Method

Participants

The Singapore sample comprised of 577 predominantly ethnic Chinese, public school students aged 15–16 (46.6% female; 77.7% religious, 22.3% secular). The Israeli sample included 190 predominantly ethnic Jewish adolescents aged 14–18 (50% female; 73% secular, 27% religious). The sample ethnicity distribution is representative of mainstream education in each country. Ethics approval was obtained from the respective universities in Singapore and Israel and students in mid-adolescence volunteered to participate. These students were invited to participate in the study so as to provide similar comparison samples with US studies, while excluding younger students beginning their secondary school studies and older students in the examination years. The students were deemed sufficiently mature and reflective to provide a range of responses. In Singapore, participating students were recruited through the schools through in-class announcements and letters to parents. Informed consent was obtained in-person from students and their parents. In Israel,

participants were recruited through flyers hung at the entrance of secondary schools. Adolescents who were interested in participating in the study contacted the research assistant, provided in-person informed consent and a letter of consent from their parents to participate in the study. In both countries, confidentiality was assured both in-person and via the consent form, and no incentives were offered. The survey was administered to students in one sitting in each of the participating schools. Data collection for the Singapore sample was conducted during the school holiday break in 2015 and 2016. For the Israeli sample, data collection took place after the spring break in late April to early May in 2016.

Measures and procedures

Students completed four questionnaires: Life Goals Questionnaire (Roberts and Robins 2000), Meaning in Life Questionnaire (Steger et al. 2006), Child and Adolescent Social Support Scale (Malecki and Demaray 2002) and Satisfaction with Life Scale (Diener et al. 1985). Demographic indicators such as age, gender, race and religion were also included in the survey. The impact of the demographic variables on the dependent variables was not statistically significant and hence, not reported. The questionnaires were administered in one session in each school, not exceeding 30 min, with a researcher present to answer questions. For the Israeli sample, the study questionnaire was translated into Hebrew, piloted, and administered in Hebrew.

Life Goals Questionnaire

The prompt, "The purpose of my life is...," requires participants to rate 17 items on a 7-point Likert scale (1 for strongly disagree to 7 for strongly agree) (Roberts and Robins 2000). Items reflect serving one's own needs (e.g., make money, have fun, be successful) and prosocial interests (e.g., help others, serve God or a Higher Power, make the world a better place), including some that do not indicate a clear orientation (e.g., do the right thing, fulfil my obligations). Reliability coefficients were not reported in the original work (Roberts and Robins 2000), because the responses were not used to create scales or factor scores, per se, but rather to understand the different purposes that students may have. We adopt this approach here by using responses to form clusters of students based on patterns of students' responses, but not attempting to compute any factor or scale scores.

Meaning in Life Questionnaire

This 10-item questionnaire measures Meaning in Life (Steger et al. 2006). There are two 5-item subscales: Presence of Meaning and Search for Meaning. The *Presence* subscale measures the extent individuals feel that their life has meaning (e.g., "I have a good sense of what makes my life meaningful"). The *Search* subscale measures individuals' desire to find or deepen meaning in their lives (e.g., "I am always searching for something that makes my life feel significant"). The items are rated on

a 7-point Likert scale ranging from 1 (absolutely untrue) to 7 (absolutely true). The questionnaire has good psychometric properties in that there is a stable factor structure and does not confound with other constructs. The reliability coefficients for the present study show good internal consistency, with Presence subscale having α = .88 (for Singapore) and α = .86 (for Israel), and Search subscale having α = .86 (for Singapore) and α = .77 (for Israel).

Child and Adolescent Social Support Scale (CASSS)

This is a 60-item multidimensional scale measuring perceived social support from five sources: teachers, classmates, close friends, parents, and people in school (Malecki and Demaray 2002; Malecki et al. 1999). There are 12 items for each subscale, which corresponds to one of the five sources of support. Students respond to statements such as, "My parents give me good advice." For each item, frequency ratings are on a 6-point Likert scale (1 for never to 6 for always). The Level 2 version of the CASSS questionnaire for middle and high schools was used in this study. The reliability coefficients for the Singapore and Israel data ranged between α = .91 and α = .96 on the five subscales.

Satisfaction with Life Scale

Five items such as, "In most ways, my life is close to my ideal," measure a global sense of life satisfaction on a 7-point Likert scale (1 for strongly disagree to 7 for strongly agree; α = .87) (Diener et al. 1985). Reliability in the present study was identical (α = .87). Since this study focuses on students, we assessed the comprehensibility and validity of this measure through a content analysis of interviews with students and teachers. This led to one item added to measure school satisfaction: "I am satisfied with how I am doing in my school." Adding single items relevant to a particular domain or situation is common with this measure (e.g., Cheung and Lucas 2014). The reliability after including this item was α = .87 (Singapore) and α = .76 (Israel) for the present study.

Data analyses

We prepared our data for analyses by performing a two-step cluster analysis (SPSS 2001) of the 17 life goals to identify possible groups of students in each country. The two-step cluster algorithm uses a hierarchical clustering approach that maximizes differences among clusters based on their responses to the purpose items. We chose the cluster model that best fits using the lowest Bayesian Information Criterion statistic. We examined the patterns of responses within each cluster to form groups of students based on their cluster membership, and to give the groups appropriate labels to aid in interpretation of subsequent analyses. Though the cluster analyses are performed separately, we found similar response patterns and use the same cluster names for both Singapore and Israeli students. To ensure that the results were not affected by possible social desirability, we repeated the analysis using items rescaled

based on the "proportion of maximum scaling" (POMS) approach (Moeller 2015). This did not yield any substantive differences, so for simplicity we report findings based on the original Likert-type data.

Next, we performed a series of analyses on the purpose groups between the countries to understand how the purpose groups differed across countries, such as relative proportion of the samples and the relationship with life satisfaction. First, we performed a chi-square test to compare these purpose clusters across countries. This helped to determine if the countries differ in how the students are distributed among the clusters.

Second, after forming the purpose clusters, we conducted a multivariate analysis of variance (MANOVA) to test for omnibus differences in life satisfaction, meaning in life variables, and social support variables by country and by purpose cluster in a 2×4 factorial design. Where appropriate, we followed up with Tukey's post-hoc comparisons to test for differences by country and by purpose cluster, and report the between-subjects effects by country and purpose cluster. The chi-square tests and MANOVA tests together help answer the first research question about the comparative levels of youth purpose, meaning in life, social support and life satisfaction among adolescents in Singapore and Israel.

Third, to answer our second research question about how life satisfaction is affected by adolescents' purpose, meaning in life, and social support, we conducted a hierarchical multiple regression analysis with students' life satisfaction regressed on the purpose clusters, meaning in life scales, and social support in the two countries.

Findings

We performed cluster analysis in parallel for the Singapore and Israel data sets, yielding four and three purpose clusters respectively (Fig. 2): (a) self- and other-focused students had long-term life goals beyond the self (with highest or second highest means on *all* purpose items); (b) self-focused students had self-oriented life goals and prioritized personal success (highest means for "make money", "support my family and friends", "have fun", "be successful" and "have a good career"); (c) other-focused students (second highest means for "help others", "make the world a better place", "change the way people think", "create something new", and "make things more beautiful"); and (d) no orientation students with no discernible life goals (lowest or second lowest mean scores on *all* purpose items). The specific patterns of life goals describing the purpose clusters were the same for students in both countries. The purpose clusters were similar to Bronk and Finch (2010) for both countries.

Of the four purpose clusters identified for the Singapore student data, self- and other-focused had the highest prevalence, followed by other-focused, then no orientation, and last, self-focused. Analysis of the Israeli adolescents' responses produced only three purpose clusters: self- and other-focused was also the most prevalent with almost three out of five students in this group, followed by self-focused, then other-focused. For the Israel data, the no orientation cluster was not included in further
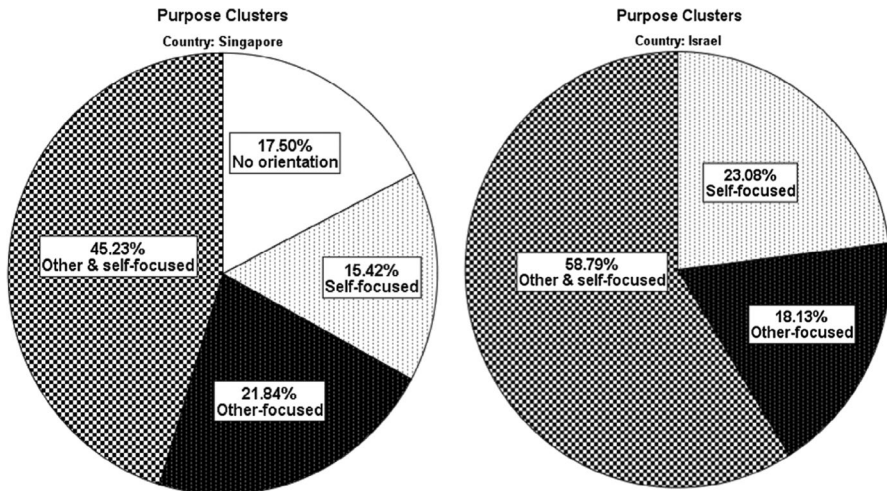
Fig. 2 Purpose clusters by country. Singapore $N = 577$. Israel $N = 187$

analysis because it consisted only of three students, a number insufficient to determine the stability of the cluster and inadequate for subsequent statistical tests.

Chi-square tests examined differences in relative group size on two dimensions, country (Israel and Singapore) and purpose group membership. This produced a significant interaction ($\chi^2_{(3)} = 42.89$, $p < .001$), demonstrating that there were statistically significant differences in the proportion of students in each purpose group between countries. Comparing the two countries, Singapore had a no orientation purpose cluster (17.5%), a slightly larger other-focused cluster (21.8% compared to Israel's 18.1%), and notably smaller self-focused cluster (15.4% compared to Israel's 23.1%) and self-and-other-focused cluster (45.2% compared to Israel's 58.8%). This was corroborated by follow-up examination of the standardized Pearson residual values, showing that the greatest difference occurred due to the lack of a no orientation group in Israel ($r = -4.9$ vs. $r = 2.8$ for Singapore), but also greater proportion of self-focused ($r = 1.9$) and self-and-other-focused ($r = 2.0$). It seems that Singapore students tend to focus on the others' needs, whereas Israeli students tend to focus on their own. @@@

Our MANOVA results showed a significant overall difference among students' responses for the main effects of country and purpose cluster, as well as the interaction of country and purpose cluster (Table 1). The partial eta-squared effect size for country (partial $\eta^2 = .29$) indicates that country difference is much larger than the effect of purpose cluster or the interaction effect. This was followed by Tukey post-hoc comparisons to explore where the significance difference arises. Tables 2 and 3 show descriptive statistics for all the scale variables, to which we refer below when comparing the purpose clusters within and between countries.

Comparisons of between-subjects effects by country revealed that, on average, Israeli adolescents had significantly higher life satisfaction ($p < .001$, $_p\eta^2 = .129$), overall social support ($p < .001$, $_p\eta^2 = .03$), support from parents ($p < .001$,

Table 1 Multivariate analysis of variance for purpose clusters and country

Effect	Wilks' λ	F	df	Error df	p	Partial η²
Intercept	.038	2185.928	8	682	.000	.962
Purpose cluster	.799	6.638	24	1978.609	.000	.072
Country	.711	34.724	8	682	.000	.289
Purpose cluster × country	.959	1.824	16	1364	.024	.021

Table 2 Descriptive statistics and summary of group differences for meaning in life and satisfaction with life variables

Purpose cluster	N	Meaning in life		Satisfaction with life
		Presence	Search	
Singapore				
No orientation	101	20.1 (6.76)	22.4↓ (6.17)	20.4↓ (7.27)
Other-focused	126	21.3 (5.26)	**24.3** **(5.15)**	**23.8** **(6.33)**
Self-focused	89	21.9 (5.59)	**25.3** **(5.41)**	**24.2** **(8.19)**
Self- and other-focused	261	24.3↑ (5.61)	27.2↑ (5.27)	26.9↑ (7.77)
Israel				
No orientation	0	–	–	–
Other-focused	33	23.5 (7.81)	**21.1** **(7.81)**	**33.1** **(5.49)**
Self-focused	42	21.3 (5.10)	**17.4** **(3.63)**	**32.3** **(5.32)**
Self- and other-focused	107	**26.3** **(5.64)**	**21.7** **(7.75)**	35.1↑ **(4.76)**

There are no students fitting the "No orientation" purpose cluster in the Israel data

Numbers in bold indicate the group in Israel is statistically different from the counterpart group in Singapore

The up and down arrow symbols (i.e., ↑ and ↓) show when a group is significantly higher or lower on that variable than all other groups within a country's data set

$_p$η² = .142), friends (p = .001, $_p$η² = .017), and classmates (p = .001, $_p$η² = .015). In contrast, Singapore's adolescents reported higher search for meaning (rather than presence of meaning) (p < .001, $_p$η² = .085) and received higher support from teachers (p < .001, $_p$η² = .021). For both countries, students in the self- and other-focused purpose clusters had significantly higher life satisfaction, presence of and search for life meaning, and social support compared to students in the other purpose clusters (Table 2).

Among the meaning in life variables, Singapore students reported higher *search* for meaning than the counterpart Israeli students did for the other-focused cluster

Table 3 Descriptive statistics and summary of group differences for social support variables

Purpose cluster	Sense of social support						Satisfaction with life
	Overall support	Parents	Teachers	Class-mates	Close friends	People in school	
Singapore							
No orientation	42.2↓ (8.33)	38.21↓ (10.97)	43.9↓ (9.94)	42.7 (12.18)	48.9 (12.45)	36.1 (11.41)	20.4↓ (7.27)
Other-focused	45.1 (7.30)	**42.8** (**11.04**)	47.0 (10.26)	45.4 (10.78)	51.9 (11.90)	**38.6** (**10.29**)	**23.8** (**6.33**)
Self-focused	46.8 (7.11)	44.3 (12.20)	**49.5** (**10.19**)	47.2 (9.48)	53.9 (11.44)	39.0 (10.70)	**24.2** (**8.19**)
Self- and other-focused	**49.4**↑ (**8.17**)	**48.3**↑ (**12.09**)	**52.1**↑ (**10.09**)	**48.0** (**11.82**)	**55.5** (**11.87**)	**42.4**↑ (**12.04**)	**26.9**↑ (**7.77**)
Israel							
No orientation	–	–	–	–	–	–	–
Other-focused	46.5 (8.18)	**58.4** (**12.24**)	46.4 (9.71)	47.9 (11.24)	56.8 (15.79)	**47.12** (**8.09**)	**33.1** (**5.49**)
Self-focused	48.3 (7.57)	57.6 (9.88)	41.3 (12.36)	51.5 (12.50)	56.4 (12.21)	34.5 (13.05)	32.3 (5.32)
Self- and other-focused	**53.8**↑ (**8.28**)	62.1 (7.32)	46.4 (13.07)	**54.5** (**12.54**)	62.8 (**8.68**)	46.0 (15.39)	**35.1**↑ (**4.76**)

There are no students fitting the "No orientation" purpose cluster in the Israel data

Numbers in bold indicate the group in Israel is statistically different from the comparable group in Singapore

The up and down arrow symbols (i.e., ↑ and ↓) show when a group is significantly higher or lower on that variable than all other groups within a country's data set

($p < .001$) and self-and-other-focused cluster ($p < .001$). For *presence* of meaning, the country context effects was reversed: students in the self-and-other-focused purpose cluster in Israel reported significantly higher scores than the corresponding group in Singapore ($p < .001$). Within each country, students in the self- and other-focused purpose cluster had the highest presence of meaning and search for meaning (Table 2).

For perceptions of social support, for each country, the self- and other-focused purpose cluster of students perceived significantly higher support as compared to all the other purpose groups in the country (Table 3). Comparisons between countries on social support demonstrated that Israeli students in the self- and other-focused purpose cluster had statistically higher perceptions of support from most sources overall, namely, support from parents, classmates and close friends, than their counterparts from Singapore ($p < .005$). Yet Singapore's self- and other-focused purpose group of students noted significantly higher support from teachers ($p < .001$). Notably, within Singapore, the self- and other-focused purpose group as compared to those with no orientation perceived significantly higher support from parents and teachers (see Table 3).

For satisfaction with life, comparison of the between-subjects effects of country and purpose clusters as factors, revealed statistically significant main and interaction effects. Descriptive statistics are presented in Table 2. The main effect of country on life satisfaction, with country explaining about 13% of the variance, was that Israeli adolescents reported significantly higher life satisfaction than Singapore's adolescents ($F_{1,689} = 102.39$, $p < .001$, partial $\eta^2 = .13$).

There was also a main effect of purpose on life satisfaction, with purpose cluster explaining about 7% of variation in life purpose ($F_{3,689} = 16.46$, $p < .001$, partial $\eta^2 = .07$). For both countries, the self- and other-focused purpose group had the highest level of life satisfaction followed by the self-focused group and other-focused group. The no orientation group in Singapore had the lowest mean scores (see Table 2). In Singapore, the self- and other-focused purpose group scored 2.7 points higher than the self-focused group ($p = .004$), 4.2 points higher than the other-focused group ($p < .001$), and 7.2 points higher than the no orientation group ($p < .001$). In Israel, the self- and other-focused purpose group was 5.5 points higher than the self-focused group and 7.3 points higher than the other-focused group (both p's $< .001$). However, in both countries, no statistically significant mean difference was obtained between the self-focused group and the other-focused group: 1.47 in Singapore ($p = .17$) and 1.77 in Israel ($p = .35$).

No interaction effect on life satisfaction resulted for cluster by country ($F_{3,689} = .54$, $p = .58$, partial $\eta^2 = .001$). Singapore students had consistently lower life satisfaction than Israeli students regardless of purpose orientation. Self-focused Singapore students were 7.7 points lower than Israeli students ($p < .001$). Other-focused were 6.3 points lower ($p < .001$), and self-and- other-focused were 7.9 points lower ($p < .001$).

To address our second research question, we conducted a hierarchical multiple regression to compare the effects on life satisfaction for the social support, purpose clusters, and meaning in life variables (Table 4, Models 1, 2, and 3). There was a consistent and positive effect for Country across all models (e.g., for Model 3,

Table 4 Hierarchical Regression on Satisfaction with Life

Effect	Model 1		Model 2		Model 3		Model 4	
	β	p	β	p	β	p	β	p
Intercept								
Country-Israel	.249	.000	.240	.000	.223	.000	.858	.003
Parents	.380	.000	.352	.000	.288	.000	.295	.000
Teachers	.116	.001	.099	.004	.073	.028	.086	.021
Classmates	.069	.065	.072	.052	.060	.099	.064	.129
Close friends	.059	.096	.046	.190	.041	.228	.032	.402
People in school	.078	.032	.075	.039	.068	.052	.088	.037
No orientation cluster			− .118	.000	− .109	.001	− .106	.002
Self-focused cluster			− .051	.098	− .032	.287	− .042	.221
Other-focused cluster			− .049	.118	− .034	.278	− .034	.309
Presence of meaning					.215	.000	.244	.000
Search for meaning					− .063	.043	− .093	.012
Country × self-focused							− .016	.698
Coun-try × other-focused							− .003	.925
Country × parents							− .401	.057
Coun-try × teachers							.006	.967
Coun-try × classmates							− .017	.911
Country × close friends							.096	.602
Country × people in school							− .164	.223
Country × presence							− .249	.056
Coun-try × search							.068	.466
Tests of ΔR²	ΔR²=.429 F₆,₆₈₉=86.199 p=.000		ΔR²=.011 F₃,₆₈₆=4.570 p=.004		ΔR²=.035 F₂,₆₈₄=23.062 p=.000		ΔR²=.011 F₉,₆₇₅=1.537 p=.131	

The regression is parametrised so that the unstandardized Intercept is the average Satisfaction with Life of Singapore's students in the self- and other-focused purpose cluster. There is no term for country × no orientation because this cluster does not exist in the Israeli data set. Standardised coefficients, denoted by β, are presented because they allow comparison of effects among the predictors. Intercepts are not reported with standardized coefficients

$\beta = .223$, $p = .000$), indicating that Israeli students had higher sense of life satisfaction after accounting for all other effects. Looking further at Model 3, there were also significant positive effects of parents' support and teachers' support on students' satisfaction with life. *Support from parents was the strongest predictor of life satisfaction* ($\beta = .288$, $p = .000$). Surprisingly, close friends did not have a significant influence on adolescents' life satisfaction, after accounting for the other variables and the social supports of parents, teachers, and others.

Among the purpose clusters, having no orientation had a significant negative impact and lowest life satisfaction ($\beta = -.109$, $p = .001$). *Presence* of meaning was a positive predictor of life satisfaction ($\beta = .215$, $p = .000$). *Search* for meaning was a weak but negative predictor of life satisfaction ($\beta = -.063$, $p = .043$). The findings suggest that the greater the presence of meaning in students' lives and the less students are searching for life meaning, the greater the students' satisfaction with their lives.

As a last step we included all interaction terms of Country with each of the purpose clusters, meaning in life, and social support variables (Model 4 in Table 4). This did not statistically significantly improve the regression model ($\Delta R^2 = .011$, $F_{9,675} = 1.537$, $p = .131$), and none of the coefficients were statistically significant (Table 4). This indicates that, although there was an overall difference in average life satisfaction between the Israeli and Singaporean students, the effects on life satisfaction of social support variables and of meaning in life are consistent for both Israeli and Singaporean students.

Discussion

Prevalence of life purpose orientations, search for meaning, parents' and teachers' support

Regarding purpose orientations, our findings are similar with the results in US (Bronk and Finch 2010), where self-and-other-focused youths were most prevalent and youths with no clear purpose were in the minority. Similar to Bronk and Finch's study, which showed that 4.2% of youth had no orientation for future goals, there were only 1.57% of Israeli youths in this category. However, there is concern that 18% of Singapore's students showed no clear purpose, especially in the light of our findings that among the clusters of purpose, having no purpose had a significant negative impact on life satisfaction.

This study also showed a lower percentage of self-focused than other-focused students in Singapore and vice versa in Israel. The different forms of communitarianism in Singapore and Israel provide for an interesting perspective. Singapore emphasizes low individualism that sees the individual more as an economic agent contributing to national growth. In comparison, Israel emphasizes moderate individualism where the notion of worthiness is associated with community relations. The community ethos for Israeli adolescents is concretized through real-life experience during the years of compulsory military service for both genders after school graduation, and the examinations for the type of military service conducted during the last two years

in school. In addition, in the relatively large Israeli families, there is an emphasis on strong family values (Schwarz et al. 2012). Hence, the moderate individualism of Israeli youth in the form of individual competition and social comparisons is quite harmoniously combined with family values and the general good of society.

In comparison, Singapore's socialization that paradoxically emphasizes a competitive ethos as well as the need to care for others may lead to moral and cognitive dissonances. Indeed, researchers like Wang and Holcombe (2010) have found that the heavy emphasis on competition, comparison, and pursuit of high grades may erode students' participation and sense of emotional connection with their schools. Kramer-Dahl (2004) argues that the narrow competencies tested by high-stakes examinations do not prepare students for the broad and varied sociocultural demands of workplaces in knowledge economies. Further negative consequences may stem from the *kiasu* mentality (the Singaporean Chinese term for "scared to lose"), which arises from the ideology of achievement but with a self-centered orientation (Lee 2009).

In terms of meaning in life, as compared with Israeli adolescents, Singapore's students reported a statistically significant higher search for meaning (but not presence of meaning) across all purpose groups. Commentators (Tan and Chew 2004; Tan and Wong 2010) have argued that the heavy emphasis on pragmatic values and economic success in Singapore leads to a lack of critical dialogue and a general sense of apathy over social and political issues. This in turn leads to general detachment from the community at large. Researchers caution that the pragmatic focus on academic success in Singapore places a huge responsibility and high expectations on students (Han 2009). Hence, it would seem that Singapore's adolescents are socialized for pragmatic and economic futures and this may play a part in explaining the lower levels of purpose and higher search for meaning among Singapore's adolescents. As argued by McLean and Pratt (2006), these narrow achievements scripted into formalized societal expectations may be negatively associated with meaning in life.

Additionally, Shin and Steger (2016) point out that the process of searching for meaning may present intellectual and emotional challenges. Yet, Steger et al. (2011) also acknowledge that search behaves like a *schema* to increase meaning-relevant information. The search for meaning in one's life may not be wholly indicative of an absence of meaning. Search for meaning is present in both positive and negative adaptive processes. Indeed, the search itself could enhance the presence of meaning where the continual search could be reflective of mature and inquiring minds constantly engaging reflexively for self-betterment. Nevertheless, the predominant focus by adolescents in Singapore on instrumentalism and performativity leading to the prioritization of academic learning (over socio-emotional needs) may be a driver for the search for greater meaning in life.

In examining social support from parents, teachers, classmates, close friends, and people in school in relation to youth purpose and life meaning, we are reminded of Macmurray's (2012) notions of mutualism and interdependence, which are argued to be the essential conditions for human development. Not surprisingly, adolescents from Singapore and Israel with both self- and other-focused purpose orientations reported high levels of social support from various sources. Overall, Israeli students reported higher social support from most sources. The interaction effect

demonstrated that Israeli adolescents perceived more parental and less teacher support and vice versa for Singapore's students.

In terms of the perceived lower parental support in Singapore, the culture of work-life imbalance in Singapore has been attributed to the ideologies of pragmatism and instrumentalism leading to the normalization of long working hours (Lim 2010). Although there is a similar culture of work-life imbalance and long working hours in Israel, the prevalence of relatively large families and strong family relationships (Schwarz et al. 2012) seem to have positive implications on Israeli youths' home and family support, possibly leading to higher life satisfaction. In terms of teacher support, which was perceived by Singapore's students to be higher than Israeli students, it could be that teacher support in Singapore schools tended to be about the pursuit of academic excellence and not necessarily for purpose development, as preliminary qualitative insights through student interviews in our larger study suggest. It is thereby important to consider the potential influence and challenges presented by the various factors on students' wellbeing.

Life satisfaction: The role of youth purpose, social support and meaning in life in Singapore and Israel

Israeli students reported an overall significantly higher life satisfaction than Singapore's adolescents, regardless of purpose orientation. Notably, for impact of youth purpose on satisfaction with life, having no orientation had a significant negative impact and resulted in the lowest life satisfaction. Adolescents' perceived life pathways may play a significant role. The lower school and life satisfaction levels for Singapore's adolescents with no orientation (this cluster was absent among Israeli youth, as mentioned in the Findings) could be reflective of the prevailing high-stakes academic achievement narrative in Singapore schools. In contrast, the higher life satisfaction of Israeli adolescents may be explained in part by the wider academic and professional options that are not entirely dependent on examination scores in school. Israel's compulsory military service provides more pathways for self-development as comprehensive aptitude tests serve to match military responsibilities and training to students' ability and potential during military service. Israeli students can also take achievement tests in their twenties, after completing military service. All in all, Israel provides students with many post-school pathways that provide opportunities for success.

Regarding the impact of social support on satisfaction with life, we found significant positive effects of parents' support and teachers' support on adolescents' life satisfaction. Support from parents was the strongest predictor of life satisfaction. Walsh et al. (2010) argued that parents, teachers, and peers have a significant impact on both mental wellbeing and risk behaviors. In terms of the impact of parents and teachers, our findings are consistent with this claim. However, in contrast to Walsh et al. (2010), in the current study, close friends did not have a significant influence on adolescents' life satisfaction. Preliminary qualitative investigations in the form of student interviews in our larger study beyond the scope of this paper indicate that youths turn to different groups of people for different kinds of support. For example,

they turn to close friends for friendship matters, but turn to teachers for questions with schoolwork and parents for larger and more long-term questions and decisions about life matters.

Moreover, among social support factors, after parental support, teachers' support was the second strongest predictor of students' life satisfaction. This suggests that schools can play a significant part in adolescent purpose development. Indeed, Shin and Steger (2016) recommend that schools should facilitate students' self-knowledge and goal-directed activities for a higher sense of purpose and meaning in school and life.

Finally, our findings suggest a trade-off in the impact of meaning in life factors on satisfaction with life. Namely, presence of meaning was a *positive* predictor, while search for meaning *negatively* predicted life satisfaction. Although, as mentioned above, in general, search for meaning in one's life can have both positive and negative aspects, at least as adolescents' life satisfaction is concerned, having meaning in life results in higher level of school and life satisfaction, while searching for meaning, in contrast, lowers school and life satisfaction. This is unsurprising as previous research indicate that search may be due to the lack of meaning, as well as association with conflict and suffering (Shin and Steger 2016). Still, more research needs to be conducted in the area of search for meaning as its considerable variability in sample groups has been found when assessed as a global construct (Steger et al. 2006).

Educational implications and conclusion

While school reforms and teaching practices seek to prepare students to be useful citizens in the face of future uncertainties, this study suggests that educational systems need to help students become aware of other-oriented goals, in addition to students' pursuit of self-oriented goals. Singapore's Character and Citizenship Education approaches that seek the reproduction of "correct" values and attitudes may not equip students with moral and intellectual autonomy and judgment to make decisions and negotiate future uncertainties (Han 2009). Broader notions of cosmopolitan communitarianism, such as Israel's "worthiness communitarianism" (Sarid 2012), where cultural differences and common values integrate global and communitarian concerns into everyday life practices, may better contribute to global belonging, involvement and responsibility (Tomlinson 1999).

This study highlights the perspectives of adolescents' experiences about school and what they perceive as purposeful and meaningful to school and life satisfaction. This study emphasizes the need to think deeply about enacting meaningful and personally relevant curricula in schools. We offer the following considerations.

First, the German Didaktik tradition of Bildung (the formation of self in education) emphasizes self-formation, encompassing the development of intellectual and moral powers, as well as the cultivation of sensibility, self-awareness, liberty and freedom, responsibility and dignity (Hopmann 2007). Where teachers provide each student with the opportunity to experience meaning by revealing the "objective and subjective sides of educational content" (Willbergh 2015, p. 346), Bildung offers a

valuable combination of beyond-the-self aims with self-determination to engender youth purpose (Klafki 2000).

Second, beyond the academic and the intellectual, there is a need for a more human experience of schooling. Diverse talents among students are valued (Zhao 2011). Macmurray (2012) argues that over-focusing on the rational and the intellectual in schools may engender feelings of cynicism and hopelessness given the limited concern with the means of life but not its ends. Fielding and Moss (2010) recommend a person-centered and dialogic approach, involving *interactions between teaching strategies and students' experiences of curricula*. This would involve the need for educators to engage in a pedagogy of listening to student voice, co-creating curricula and learning experiences with their students (e.g., Blau and Shamir-Inbal 2018). Fielding and Moss (2010) call for teachers' understandings grounded in genuine reciprocity and a "permanent provisionality" to be open to new possibilities and perspectives, resisting the "silencing, homogenizing tendencies of position and power (p. 79).

Third, there is a need to understand young people's hopes and fears for the future to address feelings of cynicism and hopelessness among some adolescents. Hutchinson (1998) argues that social imagination about the future is often characterized by fatalism and short-sightedness. Hutchinson recommends a cross-disciplinary futures curriculum to help students deal with complex issues while developing critical social thinking to challenge youth to seek opportunities for the future. In developing youth purpose and meaning, students should also be encouraged to think about issues in relation to larger social contexts, such as structural unemployment, widening income gap, and the perception that globalization only benefits the elite (Amaldas 2009).

This study is the first cross-national comparison between adolescents from Singapore and Israel–Singapore is well-known in international education benchmarks and Israel's students express a high level of satisfaction with their school experience. With data from fairly large sample sizes, this study investigated the important drivers of purpose, meaning and life satisfaction in the future of schooling. Some limitations constrain the scope of the study's findings and interpretations. First, in terms of the study's design, our sampling approach was not a systematic sampling procedure that would allow a nationally representative estimate. While we were intentional in recruiting schools to be representative of the respective countries' school-age populations and school types, we did not use a stratified random sampling procedure (e.g., DeYoreo 2018). Thus, findings cannot be used to provide a country-level estimate. Second, in terms of measures, we adopted four existing questionnaires (on life goals, meaning in life, social support, and satisfaction with life) and gathered demographic data. These are all self-report measures and the self-report nature means that we cannot eliminate possible differences across cultures in response patterns based on perceived person-culture fit (e.g., Fulmer et al. 2010) or social desirability (e.g., Johnson and Van de Vijver 2003). Future research should examine deeper qualitative insights from students and teachers that will provide a richer understanding into youth purpose and meaning that the current quantitative study is unable to provide.

Prevailing debates about educational reform have tended to be about "what works" (Biesta 2010), finding solutions and seeking closure. This study provides deeper insights into what education reforms look like in schools and classrooms

through investigating how adolescents in Singapore and Israel perceive purpose, meaning in life, social support, school and life satisfaction in relation to the contexts of their lives. If schooling is to be an experience that speaks to students as human beings, this is an invitation to schools and teachers to help engage and inspire students in finding purpose and meaning as drivers of their own learning—in life in general and in school experiences in particular.

Compliance with ethical standards

Conflict of interest No potential conflict of interest was reported by the authors.

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