Developing leadership skills among adolescents and young adults: a review of leadership programmes

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ABSTRACT
Our understanding of leadership is skewed towards the adult experience of leadership. There is a gap in the literature with regard to the experience of leadership among school children and young adults. Young people experience their first formal organization at school and models of leadership are developed from this critical period. The present review identified studies on leadership development programmes for young adults from 2003 to 2015 via electronic databases: Scopus, PubMed and Science direct. Nine studies met all the inclusion criteria and were analysed with regard to; selection, content, outcomes and theoretical background. Considerable heterogeneity in the methods used was observed. The review presents key research questions that need to be addressed in future studies.

Introduction
The term ‘leadership’ has different meanings among scholars. Approaches can differ in terms of their emphasis on personality characteristics, relational influence, cognitive and/or emotional abilities, character in relation to group orientation, and appeal to self versus collective interests. Definitions also vary in whether they are primarily descriptive or normative as well as in their relative emphasis on behavioural styles (Den Hartog & Koopamn, 2001). Leadership is regarded in many cases as a complex, multicomponent advanced competency rather than a fixed personality trait. Within this definition leadership is regarded as a dynamic procedure, which can be developed by means of appropriate interventions (Sisk, 1993). However, our academic discourses about leadership and leadership behaviours are informed by and skewed towards the adult experience of leadership.

Why should we examine leadership among young adults?
Children of all ages can take leadership roles. However, research concerning leadership development has focused almost exclusively on adult leadership and there is gap in the literature with regard to how we should develop young leaders. Historically, organizations such as the Scouts/Girl Guide movement and sports clubs have provided restricted opportunities for young adults to experience themselves in a leadership role. School is the first formal organization that the majority of individuals experience. As noted by Montgomery and Kehoe (2015), school is our primary organizational experience in childhood and adolescence and it is communicated to children as being their most important organizational experience throughout childhood. On this basis they suggest that it is reasonable to assume that our
primary learning about organizational culture and organizational roles begins there. Children spend (on average) a remarkable 12 years (or 15,000 hours) of the most formative years of their lives in school as an organization (Murphy, 2012). Thus, it’s reasonable to hypothesize that our adult organizational behaviours are rooted in how we experience school.

Wingenbach and Kahler (1997) suggest that secondary school students have the ability to develop leadership skills via decision-making, getting along with others, learning the organization of self, self-awareness, and working with groups through taking part in many youth leadership organizations in school and/or community activities.

Today, promoting and understanding leadership among young people is attracting more attention as the lines between the ‘teen’ years and young adulthood becomes blurred. Indeed, improved technology and greater mobility has ‘shortened’ the distance between countries and as a result, leadership is about the local and the global (Lee & Olszewski-Kubilius, 2014). Not surprisingly, younger adults are taking the lead with regard to use and adaptation of social media and new technologies.

It is useful to examine leadership during childhood and adolescence as what occurs during the developmental years can have an impact on the leadership behaviours exhibited later in the workplace as an adult. Thus, studying adolescent displays of leadership should further our understanding of adult leaders (Schneider, Paul, White, & Holcombe, 1999). Cooper, Healy, and Simpson (1994) reported that students who possess leadership positions in student organization achieve better than non-leaders on scales such as educational participation, career development, involvement in cultural and standard of living planning.

Adolescent leaders are more likely to take up managerial positions as adults, and leadership skills developed early on can have a positive impact on future wages (Kuhn & Weinberger, 2005). For example, in the Project TALENT male students were surveyed during high school in 1960 and were followed longitudinally for 11 years after high school. Men who were either team captains or club presidents (but not both) between 1958 and 1960 earned 3.0–4.3% higher wages 11 years after high school graduation, comparative to men who were only members of teams and/or clubs. Men who were both a captain and a president earned 6.9% more than those who participated in both teams and clubs but did not hold any leadership position.

Adolescence is an important time for leadership growth. Increasing leadership in adolescence can reinforce self-esteem and be a catalyst for flourishing adulthood. Yet many adolescents are never offered the chance to act as leaders, and adult leadership models are often inappropriate for teens that have unique developmental needs (Linden & Fertman, 1998).

Leadership theories and youth development

The three main theories of leadership (the path goal theory, the contingency theory and the transformational/transactional theory) have not adequately accounted for how youths develop as leaders and there is no literature on how these theories apply to young adults and children.

Despite ever increasing attention being paid to transformational leadership in the literature and its wide theoretical (Bass, 1998) and practical acceptance (Avolio, 1998), the development of transformational leadership behaviours has rarely been examined and remains little understood especially among young people.

Bass (1960) initially speculated about family factors that would promote the development of leadership in children. He suggested that leadership potential is greatest among the youngest siblings of the family, for children in families of four or five children, and for those children whose parents provide stimulating environments, opportunities for decision-making, encouragement, and acceptance. Instead, if indeed leadership behaviours are relatively stable (Krosnick & Alwin, 1989), then the transformational leadership behaviours that exist during adolescence may have critical implications for later leadership.
Leadership programs for young adults

During the last 10–20 years developing leaders at earlier ages has gained traction and is evidenced by the introduction of leadership programmes for undergraduate university students (Oakland, Falkenberg, & Oakland, 1996). Moreover, leadership training for secondary school adolescents have gained increased acceptance as a priority area for research and development (Barker, 1997).

The development of college students as leaders has long been a goal of higher education (Boatman, 1999; Brungardt, 1997; Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001) and a growing number of leadership programmes have emerged at institutions across the USA (Astin & Astin, 2000; Zimmerman-Oster, 2003). Student leadership programmes take many forms, from one-day workshops to stand-alone extracurricular programmes to full degree granting programmes (Micari, Gould, & Lainez, 2010). If our aim is to understand leadership development among young adults, examining the programmes that purport to do this is a good starting place.

Aims and objectives

The field of leadership has been dominated by a focus on adult leaders. There is a significant gap in the literature concerning the development of leadership among young adults and the factors that contribute to leadership in young adults have not been systematically assessed. Despite the large body of research on leadership and leadership behaviours, it is noteworthy that little research exists with regard to the experience of developing young adults to be leaders.

The aim of this review was to identify the literature concerning young adults as leaders and examine the evidence base for the benefits associated with leadership programmes with young adults. Specifically, we will examine the content and process issues concerning leadership development programmes for young adults.

Method

The review covers published articles from 2003 to 2015 and is restricted to studies published in the English language. The following electronic databases were searched: Scopus, PubMed and Science direct. The search terms were: ‘leadership program’ OR ‘leadership training’ AND (child* OR student OR adolescen* OR teen* OR young OR high school OR university OR college) AND (intervention OR development OR skills OR mentor*OR education).

For inclusion the articles had to fulfil the following criteria: first, the article had to be original research that reported on an actual leadership programme aimed at young adults. Literature such as letters, editorials, and book reviews and theoretical papers were excluded. Second, the abstract was reviewed to determine whether leadership training was the primary, rather than peripheral focus of the article. Furthermore, articles had to be published in English and be peer reviewed. Specifically, we included studies that discussed the content, components, processes, goals, and duration of the programme.

We initially aimed to include only secondary school children both in school and outdoor education, but we expanded our criteria to include university students as there was limited research on school children.

Identification of the studies

The process of the literature review is shown in Figure 1. The combination of keywords yielded 413 potentially relevant articles in 3 different databases, 187 in Pub Med, 166 in Scopus and 60 in Science Direct. Fifty-four articles were excluded due to duplication across the 3 different databases resulting in 359 articles. After reviewing the titles and abstracts of the articles, 307 of them were excluded. Fifty-two full text articles were studied and 43 were excluded for not meeting one or more of the inclusion criteria. The most common reasons for exclusion were that they were leadership programmes among adults
and/or they did not provide much information about the content of the programme and outcomes. Finally, nine were selected for the present review as they meet all the inclusion criteria.

**Results**

Nine articles were selected for the present review. Detailed information regarding their content, objectives, duration, participants and outcomes is presented in Table 1. The results indicate considerable heterogeneity among the programmes used in terms of duration, objectives, methods and outcomes.

Overall, the studies were characterized by two macro objectives; to evaluate the effectiveness of the programme and to enhance participants’ leadership skills.

In terms of geographical spread three studies were conducted in Australia, two in Hong Kong, one in the USA, one in Malaysia, one in Israel and one in Taiwan. The duration of the leadership programmes ranged from 1 day (Chen, Chou, & Lee, 2009) to one year (Cohen, Chang, Hendricks, Cope, & Harman, 2011). In two studies the duration was not specified (Gregoric & Owens, 2008; Hendricks, Cope, & Harris, 2010;). The number of participants ranged from 10 (Hendricks et al., 2010; Hoyt & Kennedy, 2008) to 242 (Said, Lee, Pemberton, & Ahmad, 2013). Roughly two-thirds of the participants were students attending high school and the remainder were university undergraduate students. Consequently, 5 out of 9 studies involved high school students and 4 out of 9 studies involved undergraduates. In 5 out of 9 studies the age of the participants is not reported.

The majority of the studies did not have a control group. Only three studies used a control group (Chan, 2003; Cohen, Roth, York, & Neikrug, 2012; Wong, Lau, & Lee, 2012). In Chan (2003) the control group had the same selection criteria as the research group but the control group participated in a programme that had no similarity to the leadership programme of the intervention group. In Wong et al. (2012) and Cohen et al. (2012) students were randomly allocated to an intervention group and a control group and the control groups did not participate in any programme.

The studies included in the review were heterogeneous with regard to their objectives and the way of reporting the findings. In order to evaluate the studies in a coherent way, the studies have been analysed...
Table 1. Study Characteristics.

| Study                  | Sample                              | Age of participants | Objectives                                                                 | Measures                                      | Duration | Measurement | Results                                                                 |
|------------------------|-------------------------------------|---------------------|---------------------------------------------------------------------------|-----------------------------------------------|----------|--------------|-------------------------------------------------------------------------|
| Chan (2003)            | 43 men-73 women high school students (Hong Kong) | $M = 15.74$ SD = .96 | Evaluate the effectiveness of the leadership programme | Leadership characteristics (communication skills, creative & divergent thinking, problem solving) Social skills | Five days | Pre & post questionnaires 6 weeks Control group | Students gained confidence as leaders, especially in skill areas of communication and public speaking, in regulating emotions and generating alternatives in social problem solving. |
| Gregoric & Owens (2012)| 14 men-14 women high school students (South Australia) | Range = 16–17 | Evaluate the relationship between a peer support leadership training programme and the development of peer leaders' social skills | Social skills | Two days | Pre and post questionnaire quantitative and qualitative method Ten weeks later | The training had a positive impact on participants' overall social skills, cooperation, decision-making, conflict resolution and self-esteem but limited improvement in belonging to the community. |
| Hendricks et al. (2010)| 10 women undergraduates (Australia) | NR                  | Train nurses to improve their leadership capabilities | Leadership characteristics (communication, goal set, positive to change, confidence) | Six months | Pre and post questionnaire | Participants increased their ability to influence, persuade and motivate others; to effectively communicate; to team build and work collaboratively; to develop problem solving and perseverance skills to overcome obstacles & to serve as agents for positive change. |
| Hoyt and Kennedy (2008)| 10 women high school students | $M = 15.9$ | To promote leadership among participants | Views on leadership | Six weeks | Pre and post interviews | The girls felt empowered to lead in diverse ways, claim their identities as leaders. There were distinct thematic changes with respect to how participants viewed leadership. |
| Wong et al. (2012)     | 180 high school students (Hong Kong) | $M = 15.18$ SD = .62 | Evaluate the effectiveness of the leadership training programme on self-esteem and self-efficacy | Self-esteem and Self-efficacy | Six months | Pre and post questionnaire Control group | The overall self-esteem and self-efficacy scores increased after the programme. |
| Cohen et al. (2011)    | 30 undergraduates (Australia) | NR                  | Improve leadership knowledge and enhance the leadership skills | Leadership knowledge and skills | Twelve months | Pre and post questionnaire | Students reported increased skill development and enhanced employment prospects. They practised their skills, gained confidence and improved their communicational skills. |
Table 1. (Continued)

| Study          | Sample                                                                 | Age of participants | Objectives                                                                 | Measures                                      | Duration | Measurement                      | Results                                                                 |
|----------------|------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------|-----------------------------------------------|----------|-----------------------------------|-------------------------------------------------------------------------|
| Said et al. (2013) | 111 men-112 women undergraduates (Malaysia)                           | NR                  | Evaluate the effectiveness of the leadership training programme           | Effectiveness of the programme               | Three to five days | Pre and post questionnaire and focus groups seven months later | The participants increased and enhanced their knowledge of leadership. |
| Cohen et al. (2012) | 35 men-129 women junior high school students (Israel)                 | NR                  | Study the relationship between participation in the programme, changes in attitudes toward people with disabilities & self image | Attitudes towards people with disabilities   | 167 h 4.5 h/once a week | Pre and post questionnaire, eight months later Control group | Positive change in attitudes towards people with disabilities but the programme was not shown to influence the self-image of the participants. |
| Chen et al. (2009)  | 114 vocational high school students (Taiwan)                           | NR                  | Explore the effect of leadership training of group activities         | Leadership abilities                          | 1 day (leadership camp)          | Post questionnaire, teachers’ reflection & students’ self-report 4 weeks later | Participants reflected on personal growth in problem solving skill and leadership |
via the four phases of the leadership programmes: Selection Criteria for the Students, Theoretical Background to the Programmes, Content of the Programmes, and Outcomes of the Programmes.

**Selection criteria for the students**

There was considerable variation with regard to the selection criteria used. Selection criteria were reported in all studies except one (Chen et al., 2009) where the participants came from four vocational high schools but did not report how the schools were selected.

In two studies students were selected by their teachers (Chan, 2003; Cohen et al., 2012). The students were nominated by their school on the basis that they were considered to either have a high IQ score or to be academically gifted or if they had shown specific talents in the areas of creativity or leadership and their desire for social involvement and selection.

In three studies (Cohen et al., 2011; Hendricks et al., 2010; Hoyt & Kennedy, 2008) students volunteered and then were chosen by the researchers and their selection was based on some form of standardized assessment procedure. As a selection tool they used both written essays and interviews and participants were selected on the basis that they were both willing and could complete the programme. Hoyt and Kennedy (2008) selected applicants that did not regard themselves to be qualified as ‘leaders’ to participate. They were selected using a written essay and interview to identify individuals who expressed the commitment to examine and develop their own leadership and the leadership of others.

In three studies (Gregoric & Owens, 2008; Said et al., 2013; Wong et al., 2012) students volunteered to participate within the context of their school that took part in the study. In the study of Gregoric and Owens (2008) participants came from a public high school in a low socio-economic area. Overall, the majority of the studies targeted people who expressed an interest in developing leadership skills and who held a belief that the programme was going to be useful to them.

**Theoretical background to the programmes**

Overall, the reviewed studies made distal references to theory. Gregoric and Owens (2008) emphasized social development and social skills development as a significant factor for the transition from childhood to adolescence. In Hendricks et al. (2010), the leadership programme that they implemented was based on the work of Bennis (2003) where he distinguished six personal qualities of leadership which are: integrity, dedication, magnanimity, humility, openness and creativity. According to this approach leadership was regarded as involving self-awareness and communicating it to others, building trust among others and taking effective action to realize one’s personal leadership potential.

In Hoyt and Kennedy (2008), a distinction was made between transactional and transformational leadership. The authors grounded their approach on the leadership development during adolescence where they indicated that participation in community service and civic engagement plays a major role in the personality of the future adult. In Wong et al. (2012), the programme was founded on the ‘Service Learning Approach’ where learning happens through a cycle of action and reflection when students cooperate with others putting in action what they have learnt and reflecting upon their experience.

In Cohen et al. (2011) the programme was developed to reflect trait theories which proposed that leadership characteristics are rooted in the personalities of leaders. They utilized the work of Bennis and considered leadership to comprise personal characteristics such as self awareness, developing trust when cooperating with others, being able to communicate in an effective way your vision to others and being conscious of one’s leadership strengths. Chen et al. (2009) based their approach upon cooperative learning which is the instructional use of small groups in order for students to work together and make the best of each student’s learning.
The content of the programmes

The content of the programmes was reported in all studies (except Said et al., 2013). In the Chan (2003), the programme had five modules of five full-day sessions of training, which included communication skills, public speaking, creative thinking, problem solving, leadership skills and group dynamics, and peer support and organizing school activities. Following on from the course, students were selected to take up leadership roles in student activities in their respective schools. Gregoric and Owens (2008) used a two-day training workshop that was conducted by a coordinating teacher in order to facilitate students to become peer leader. The activities involved warm up activities, cooperation, communication, emotions and feelings, relationships, friendship, rules, group dynamics, decision-making, problem solving and self-awareness.

In Hendricks et al. (2010), the programme studied three components: leadership knowledge, leadership skills and leadership inaction. Sessions were separated into leadership knowledge that involved a one-day Leadership Retreat, a foundation leadership session for half a day and six 2-h sessions over a period of 6 months. Participants then participated in a leadership in-action project where they worked in a leadership capacity with a leader mentor from a local health care organization to provide strategic leadership in a negotiated community development project and they completed a minimum of 30 h of work on their respective projects. In Hoyt and Kennedy (2008), the intervention consisted of a six-week curriculum that focused on leadership exploration through education, observation and action. This programme included rigorous coursework, multi-generational mentoring, and service/experimental learning in many forms, including independent youth-designed activism projects to be implemented within the participants’ communities after programme completion.

In Wong et al. (2012), the programme included leadership activities, volunteer services and school-based moral educational programmes. Students could offer their services for children with disabilities and people living in underprivileged areas. The activities were designed to enhance students’ organizational capabilities, problem-solving skills, team building techniques, fostering of care and concern towards others, sharing of successful experiences and build up expertise on activity design among the programme participants. In Cohen et al. (2011) the programme offered both theoretical sessions and practical experience where they included workshops and seminars that entailed three curricular components: leadership knowledge, leadership skills and leadership in action. The curriculum included coming to terms with the theoretical knowledge and students were then given the chance to practise their leadership skills by taking part in a series of expert-driven seminars, via role-playing, perspective taking and management of groups. Furthermore, students cooperated with local industry-leaders in order to offer strategic leadership in developing and implementing a community project.

In the Cohen et al. (2012) study, participants took part in workshops from the beginning of the programme that presented information about disabilities. Later, they began volunteer projects that offered services to people with disabilities within various frameworks and had active participation in various interest groups such as music, art, cooking and sports. At the same time the programme advisor continued to meet with the members once a week. In Chen et al. (2009) the leadership training camp was based on an approach towards leadership development via the use of fables/stories. The courses adopted the methods of competitive team activities, story-telling and questioning, story building up and enacting and experiences sharing. However, it is noteworthy that the description of the actions undertaken during the action phase was not always described in enough detail.

Outcomes of the programmes

The outcomes of the programmes were highlighted by all studies. Eight of the nine studies were based on quantitative methods with questionnaires except for one that used a qualitative approach with interviews (Hoyt & Kennedy, 2008). Three studies used both methods (Gregoric & Owens, 2008; Said et al., 2013; Chen et al., 2009). All of the studies made a pre and post measurement except for one that
made only a post measurement (Chen et al., 2009). In the majority of the studies there was a generally positive evaluation of the effectiveness of the programme with regard to the initial objectives.

Chan (2003) conducted a within subject analysis and also a comparison analysis between the research and the control group. The results showed that there were no significant differences between the control and the research group on creativity and leadership measures before the training but they did not include post training results for the control group. Within subject results indicated that there was improvement in divergent thinking, in communication and public speaking. Gregoric and Owens (2008) used both questionnaires and case studies. The results indicated the helpful impact on the effectiveness, cooperation, communication, empathy, belonging to school, relationships at home, friendships, decision-making, conflict resolution and confidence. There was less impact on the sense of belonging to the community. In Hendricks et al. (2010), the participants reported that the programme was beneficial to them in terms of the transfer of knowledge, attitudes and skills. They became more confident and positive to confront the challenges they face and met their personal goals through the ability to manage conflict and negotiate. They found a statistically significant change in leadership skills and behaviour.

In Hoyt and Kennedy (2008), the participants reported that they became more aware of the ways to overcome barriers and felt the strength to lead in various ways and became more confident to lead. The interviewer had prior association with this leadership programme as a tutor of the course. Additionally, a focus group was conducted with the participants. In Wong et al. (2012), the intervention group was found to have improvements of both self-esteem and self-efficacy scores while the control group showed a decrease in both scores. However, the differences in these changes were not found to be statistically significant.

In Cohen et al. (2011) participants reported the change in their leadership knowledge and skills. As the results indicated, prior to the programme students were not aware of leadership knowledge or the required skills to be an effective leader. After the programme participants reported increased skill development, greater application of their leadership skills in everyday life and the development of confidence and improved employment prospects. In Said et al. (2013) the participants replied to a survey instrument and some focus groups were used as an additional resource. Participants reported that they benefited from the programme and they learned practical knowledge and skills and were able to apply these skills at their training sites.

In Cohen et al. (2012) the attitudes of the research group towards people with disabilities at the end of the programme were significantly more positive than their attitudes at the beginning of the programme. On the other hand, in the control group no significant differences were found. In Chen et al. (2009) the participants reported more confidence in themselves, more confidence to interact with others and more willingness to find solutions to problems.

Discussion

Overall, the studies reviewed were heterogeneous and lacked methodological rigour. There are a number of fundamental methodological issues common to many of the studies that need to be acknowledged before we reach conclusions. On the one hand, there is some evidence that young people experienced the programmes positively and that improvements were noted on a range of psychological outcomes such as self-esteem and their general awareness about possibilities to experience leadership roles. However, the studies have significant problems regarding selection effects and programme content. It’s difficult to discern the degree to which teachers were either directly or indirectly influencing selection, and the degree to which selected schools were representative of the wider population. Additionally, the content of the programmes were weakly tied to the reported outcomes and lacked any rigorous theoretical foundations guiding their design. Thus, developing a synthesis of the different studies is problematic. The review presents more questions than answers. For example, more detailed information on the epistemological roots of the programmes would allow us to ascertain whether they were adults programmes designed for young people, or bespoke programmes that were evolved specifically to address the perspective of a young adult.
Interestingly, none of the studies reviewed examined the influence of parenting behaviour on the leadership abilities of the children. For example, Zacharatos, Barling, and Kelloway (2000) examined the influence that parental modelling can have on the development of adolescents’ leadership. Their research focused on a sample of 112 Canadian high school students who were members of different sports teams. Adolescents’ perceptions that their parents demonstrated transformational leadership behaviours were associated with a greater likelihood that these adolescents exhibited similar leadership behaviours. Also, those adolescents who displayed transformational behaviours were rated as more satisfying, effective and effort-evoking leaders by their peers and coaches in their particular team context. Moreover, Murphy and Johnson (2011) have examined the so-called seeds of leader development that germinate and root at various stages before adulthood. They suggested that relevant developmental experiences may occur more readily during sensitive periods of childhood and adolescence, which influence development during adulthood. The authors ultimately argued for additional longitudinal examinations of leadership development over the lifespan as a means to help advance current leader development practices.

The reviewed studies did not adequately contextualize their results with regard to the school/university environments of the participants. Children can be capable in a wide range of activities; however, schools by design are likely to take into consideration only one way of being intelligent. Schools have a tendency to value critical scholastic skills and askew creativity (Sternberg, 2003). However, creative and practical skills are quite significant for a person’s development and success and can have a positive impact after the ending of formal schooling (Sternberg, 1999).

**Implications of the review for how schools can approach leadership**

Specifically, we would recommend that future research seeks to address the contribution of schools in the development of leadership skills among students. It would also be interesting to examine whether schools play a role in reinforcing children to believe that they lack leadership abilities, based on ethnicity, class or gender. At a methodological level, further work should include appropriate control groups. It is interesting to note that we did not find any training programme concerning excluded young adults (e.g. gang members) in leadership, involving children that are marginalized and have dropped out of school. Thus, it suggests that such leadership programmes are influenced by a selection bias.

The majority of schools involve their students in leadership roles (e.g. house captains, prefects, and sports captains, buddy programmes between older and younger students). Therefore, they run the risk of inserting young people in roles without the appropriate support or structure on a ‘learn-by-doing’ approach. Moreover, it’s likely that the selected individuals are those that excel scholastically and/or whose behaviour conforms to the norms of the school communicating a broader message to the school community as to what ‘makes’ a leader.

It is surprising that when teachers talk about the mental growth of their students they do not refer to the development of their imagination (Gajdamaschko, 2005). On the whole schools undervalue creativity. In many cases teachers consider creativity to be the same as intelligence or that schooling cannot or should not assess creativity, or in other cases they are unaware of how to teach creativity (Sternberg, 2003).

**Limitations**

The review was limited by the file-drawer problem, whereby it is possible that important unpublished work may have been missed. Additionally, only articles in English were reviewed. The heterogeneous nature of the studied reviewed was a barrier to synthesizing the results of the programs in a meaningful way.
Conclusions

There is growing evidence that we significantly underestimate the ability of children to understand the vagaries of work and the way that work impacts on adults (Galinsky, David, & 3M Company, 2010). Moreover, there is a contradiction in educational systems that tend to valorize conformity and rote-learning rather than initiative taking.

Currently, society has many expectations from leaders on how to run their organizations and manage to succeed in difficult situations. For example, Gregersen, Morrison, and Black (1998) have identified four strategies that are particularly effective in developing global leaders: foreign travel, with involvement in the country’s way of life; working closely within teams with people coming from varied backgrounds and perspectives; training that involves classroom and action learning projects; and overseas assignments, which serve to broaden the viewpoint of future global leaders. One could argue that the aforementioned qualities could be imbued among young people easier than ‘experienced’ executives. Finally, none of the evidence that we have reviewed has explored whether we can engage young people in defining and redefining leadership. The global economic crisis that is ongoing since 2008 begs the question of whether we need leaders with entirely different values, and younger people represent a perfect starting point.

Finally, the degree to which adult models of leadership are appropriate for younger people is an open question. Do we embrace a top-down approach whereby we feedback the skills and lessons of successful leaders to a younger generation, an apprenticeship approach. Alternatively, do we support a bottom-up approach whereby we empower younger people to rethink leadership models and provide the opportunity for them to organically develop different models of leadership?

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

Astin, A. W., & Astin, H. S. (2000). Leadership Reconsidered: Engaging Higher Education in Social Change. Retrieved from http://eric.ed.gov/?id=ED444437.
Avolio, B. J. (1998). Full leadership development: Building the vital forces in organizations. Thousand Oaks, CA: Sage.
Barker, R. A. (1997). How can we train leaders if we do not know what leadership is? Human Relations, 50, 343–362. doi:10.1177/001872679705000402
Bass, B. M. (1960). Leadership, psychology, and organizational behaviour. New York, NY: Harper & Brothers.
Bass, B. M. (1998). Transformational leadership. Mahwah, NJ: Erlbaum.
Bennis, W. (2003). Six qualities of leadership. Retrieved from http://changingminds.org/disciplines/leadership/articles/bennis_qualities.htm
Boatman, S. A. (1999). The leadership audit: A process to enhance the development of student leadership. Journal of Student Affairs Research and Practice, 37, 60–71. doi:10.2202/1949-6605.1100
Brungardt, C. (1997). The making of leaders: A review of the research in leadership development and education. Journal of Leadership & Organizational Studies, 3, 81–95. doi:10.1177/1071791997003000030
Chan, D.W. (2003). Leadership skills training for Chinese secondary students in Hong Kong: Does training make a difference? Journal of Secondary Gifted Education, 14, 166–174.
Chen, F.-S., Chou, H.-W., & Lee, M.-C. (2009). The effect of leadership training for vocational high school students: Courses based on David Hutchens’s learning fable series. *The International Journal of Learning, 16*, 461–472.

Cohen, L., Chang, P. P. W., Hendricks, J., Cope, V., & Harman, B. (2011). Enhancing psychology students’ experiences: The development of an undergraduate leadership programme. *Psychology Learning & Teaching, 10*, 164–169. doi:10.2304/plat.2011.10.2.164

Cohen, R., Roth, D., York, A., & Neikrug, S. (2012). Youth leadership program for changing self-image and attitude toward people with disabilities. *Journal of Social Work in Disability & Rehabilitation, 11*, 197–218. doi:10.1080/1536710X.2012.704215

Cooper, D. L., Healy, M. A., & Simpson, J. (1994). Student development through involvement: Specific changes over time. *Journal of College Student Development, 35*, 98–102.

Cress, C. M., Astin, H. S., Zimmerman-Oster, K., & Burkhartt, J. C. (2001). Developmental outcomes of college students’ involvement in leadership activities. *Journal of College Student Development, 42*, 15–27.

Den Hartog, D., & Koopman, P. (2001). Leadership in organizations. In N. Anderson, D. S. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.), *Handbook of Industrial, Work & Organizational Psychology* (Vol. 2, pp. 166–187). London: Sage.

Gajdamaschko, N. (2005). Vygotsky on imagination: Why an understanding of the imagination is an important issue for schoolteachers. *Teaching Education, 16*, 13–22. doi:10.1080/104762105200034158

Galinsky, E. (1999). *Ask the children: What America’s children really think about working parents*. New York, NY: William Morrow & Company.

Gregersen, H. B., Morrison, A. J., & Black, J. S. (1998). Developing leaders for the global frontier. *Sloan Management Review, 40*, 21–32.

Gregoric, C. & Owens, L. (2008). The effectiveness of peer support leadership training in a South Australian school. *International Journal of Adolescence and Youth, 14*, 93–112. doi:10.1080/02673843.2008.9747997

Hendricks, J. M., Cope, V. C., & Harris, M. (2010). A leadership program in an undergraduate nursing course in Western Australia: Building leaders in our midst. *Nurse Education Today, 30*, 252–257. doi:10.1016/j.nedt.2009.12.007

Hoyt, M. A. & Kennedy, C. L. (2008). Leadership and adolescent girls: A qualitative study of leadership development. *American Journal of Community Psychology, 42*, 203–219. doi:10.1007/s10464-008-9206-8

Krosnick, J. A., & Alwin, D. F. (1989). Aging and susceptibility to attitude change. *The Leadership Quarterly, 5*, 2680.3.4.292

Lee, S.-Y., & Olzsewski-Kubilius, P. (2014). Leadership development and gifted students. In R. J. R. Levesque (Eds.), *Encyclopedia of adolescence* (pp. 1557–1565). New York: Springer. Retrieved from http://link.springer.com/referenceworkentry/10.1007/978-1-4419-1695-2_290

Lindem, J. A. V., & Fertman, C. I. (1998). *Youth leadership: a guide to understanding leadership development in adolescents*. San Francisco, CA: Jossey-Bass.

Marland, S. P. (1972). *Education of the gifted and talented, volume 1: Report to the Congress of the United States by the US Commissioner of Education* (Vol. 1: 126 pp.; Vol. 2: 392 pp.). Washington, DC: US Government Printing Office.

Micari, M., Gould, A. K., & Lainez, L. (2010). Becoming a leader along the way: Embedding leadership training into a large-scale peer-learning program in the STEM Disciplines. *Journal of College Student Development, 51*, 218–230.

Montgomery, A., & Kehoe, I. (Eds.). (2015). *Reimagining the purpose of schools and educational organizations: Developing critical thinking, agency, beliefs in schools and educational organizations*. Cham, Switzerland: Springer.

Murphy, J. (2012). *Homeschooling in America: Capturing and assessing the movement*. (2012 (1st ed.). Thousand Oaks, CA: Corwin.

Murphy, S. E., & Johnson, S. K. (2011). The benefits of a long-lens approach to leader development: Understanding the seeds of leadership. *The Leadership Quarterly, 22*, 459–470. doi:10.1016/j.leaqua.2011.04.004

Oakland, T., Falkenberg, B. A., & Oakland, C. (1996). Assessment of leadership in children, youth and adults. *Gifted Child Quarterly, 40*, 138–146. doi:10.1177/001698629604000304

Said, H., Lee, C., Pemberton, A., & Ahmad, I. (2013). Effectiveness of leadership training programs in public universities in Malaysia in developing students' knowledge of leadership. *World Applied Sciences Journal, 28*(1), 1–8. doi:10.5829/idosi.wasj.2013.28.01.1804

Schneider, B., Paul, M. C., White, S. S., & Holcombe, K. M. (1999). Understanding high school student leaders, i: Predicting teacher ratings of leader behavior. *The Leadership Quarterly, 10*, 609–636. doi:10.1016/S1048-9843(99)00038-7

Sisk, D. A. (1993). Leadership education for the gifted. In K. A. Heller, F. J. Monks, & A. H. Passow (Eds.), *International handbook of research and development of giftedness and talent* (pp. 491–505). New York, NY: Pergamon.

Sternberg, R. J. (1999). The theory of successful intelligence. *Review of General Psychology, 3*, 292–316. doi:10.1037/1089-2680.3.4.292

Sternberg, R. J. (2003). Creative thinking in the classroom. *Scandinavian Journal of Educational Research, 47*, 325–338. doi:10.1080/003138303085895

Wingenbach, G. J., & Kahler, A. A. (1997). Self-perceived youth leadership and life skills of Iowa FFA members. *Journal of Agricultural Education, 38*, 18–27.
Wong, M. C. S., Lau, T. C. M., & Lee, A. (2012). The impact of leadership programme on self-esteem and self-efficacy in school: A randomized controlled trial. PLoS ONE, 7, e52023. doi:10.1371/journal.pone.0052023

Zacharatos, A., Barling, J., & Kelloway, E. K. (2000). Development and effects of transformational leadership in adolescents. The Leadership Quarterly, 11, 211–226.

Zimmerman-Oster, K. (2003). How can I tell if it’s working? Ten strategies for evaluating leadership development programs in higher education. Concepts & Connections, 11, 511.