LETA HOLLINGWORTH – HER WORK AND LEGACIES TO THE FIELD OF GIFTED EDUCATION

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Abstract

Leta Stetter Hollingworth was a pioneer in the field of gifted education. She supported gifted children and gifted education in the New York area, in the early 20th century, by inventing strategies to identify, teach and counsel gifted children (Davis and Rimm, 2004). Although she has been described as the 'nurturant mother' of the gifted-child movement, she also published research on the psychology and status of women and sex differences, learning disabled children, cognitively challenged children and adolescents (Stanley, 1978a in Davis and Rimm, 2004, pg. 7). Many of the issues surrounding the education of gifted students that L. S. Hollingworth grappled with and questions she asked are ones that are still relevant today.

Article

What Professor Leta Stetter Hollingworth (1886 – 1939) achieved professionally, within the social and political context of her time, was quite extraordinary. She supported gifted children and gifted education in the New York area, in the early 20th century, by inventing strategies to identify, teach and counsel gifted children (Davis and Rimm, 2004). Although she has been described as the 'nurturant mother' of the gifted-child movement, she also published research on the psychology and status of women and sex differences, learning disabled children, cognitively challenged children and adolescents (Stanley, 1978a in Davis and Rimm, 2004, pg. 7). Additionally, L. S. Hollingworth was also instrumental in "the professionalisation of clinical and school psychology" (Fagin, 1990 in Klein, 2000, pg. 97). This review will, however, focus on her work in gifted education and the legacies she left to the field of gifted education.

Leta Stetter Hollingworth commenced her professional life as a teacher and assistant principal (Hollingworth, H. L., 1943; Klein, 2000; Silverman, 1992). After marrying and moving to New York City, where she was unable to continue teaching because of her marital status, L. S. Hollingworth completed a Masters of Education and a PhD (Hollingworth, H. L., 1943;

Klein, 2000; Silverman, 1992). On completion of her PhD, L. S. Hollingworth took up a faculty position at Teachers College, Columbia University where she taught courses in the field of the psychology of mentally deficient children with one of them the first course on the psychology of exceptional (gifted) children (Hollingworth, H. L., 1943; Klein, 2000; Pritchard, 1951; Silverman, 1992).

Her interest in gifted children began when she demonstrated to her students the difference between the workings of inferior and superior minds by administering the recently published Stanford-Binet intelligence test to an eight year old boy, whom his teachers regarded as 'superior' (Davis and Rimm, 2004; Hollingworth, H. L., 1943; Pritchard, 1951). His test score indicated he had an IQ of 187. "I perceived the clear and flawless working of his mind against a contrasting background of thousands of dull and foolish minds. It was an unforgettable observation" (Hollingworth, L. S., 1942, pg. xii).

As L. S. Hollingworth began to concentrate on gifted education, she became concerned that appropriate educational opportunities did not exist for gifted children stating

> "it has been urged that there need be no special provisions for the able, as they can take care of themselves under any circumstances and may be trusted to find their own way through the world. We do not know the truth of this assumption and cannot know it until at least one generation of tested children has passed through adulthood…It has already been shown that they find their own way forward in school, but not to a level commensurate with their capacity for functioning" (Hollingworth, L. S., 1926, pp. 296-297; Klein, 2000; Pritchard, 1951).

During a time when there was little knowledge on how to provide a differentiated curriculum for gifted students, in 1922-23, L. S. Hollingworth undertook her first educational experiment with the formation of two Special Opportunity Classes at Public School 165 (P.S. 165), which continued for three years (Hollingworth, L. S., 1942; Hollingworth, L.S., 1926; Klein, 2000; Pritchard, 1951). These classes were founded on the premise that regular classrooms can't cater for the needs of children with outstanding superior mental ability (Pritchard, 1951). Two groups of 26 children, who showed substantial grade acceleration and were within the chronological age range of 7.5 and 9. 5 years, were formed – Group A with IQs from 150 upwards and Group B with IQs between 134 and 154 (Hollingworth, L. S., 1926; Pritchard, 1951). The rationale of the experiment was to educate these children, as the classes existed

for them, and to study them "genetically, physically, psychologically and educationally; keeping records of their development and progress physically, socially and educationally" (Hollingworth, L. S., 1926 in Pritchard, 1951, Pg. 55).

L. S. Hollingworth condensed the regular curriculum into the first half of the day, providing enrichment in the second half. Enrichment activities focused on the development of creativity and study of biography using a thematic approach (Silverman, 1992). Students selected topics within the theme for group and individual projects. Modern languages and literature, music, art, science and field trips were incorporated into the program (Hollingworth, L. S., 1926; Pritchard, 1951; Silverman, 1992).

L. S. Hollingworth asserted that homogenous grouping was the most effective type of education for gifted students in highly populated areas within a relatively limited geographical area (Hollingworth, L. S., 1926; Pritchard, 1951). However, she was aware of concerns that segregated classes could breed conceit in the selected children; jealousies in children not selected, and promote undemocratic ideals (Hollingworth, L. S., 1926; Silverman, 1992). L. S. Hollingworth countered these concerns by stating that her research showed no indication that the children in the Special Opportunity Classes developed conceit, jealousies would be minimised by using tact with parents and unselected students. The classes solved the problem of how to cater for these students (Hollingworth, L. S., 1926; Pritchard, 1951).

During and at the completion of her study, L. S. Hollingworth came to the following conclusions, most of which are still relevant today (Hollingworth, L. S., 1926; Jolly, 2006; Silverman, 1992):

- It's necessary to adapt the curriculum to the individual needs of the child, allowing them to progress at their own pace. Children in the Special Opportunity Classes completed their regular curriculum in the half the time it took other children, with some in group A requiring only a quarter of the time.
- Learning has to be child-centred rather than teacher-focused.
- Teachers of gifted children need to possess the right attitudes towards gifted children, be highly educated and be of an equally high intelligence in order to keep up with the students and maintain their respect. Appropriate teacher attitudes she identified included open-mindedness towards gifted children, a sense of humour and patience.

- Pedagogical methods must be modified for gifted children, keeping repetitive drills to a minimum and focusing on what are now known as higher order thinking skills such as evaluation, synthesis and analysis.
- The classroom environment for gifted children must be resource-rich, including books and displays of students' work. The classroom layout should also include moveable desks and chairs to facilitate a flexible learning space (Hollingworth, L. S., 1926).
- The asynchronous development between intellectual and physical and emotional maturity can make rapid advancement difficult for gifted children, particularly those in their first years of elementary school (Hollingworth, L. S., 1926; Pritchard, 1951). However, L. S. Hollingworth (1926, pg. 300) asserted that providing special opportunity classes for gifted children made it "possible for such children to accomplish as much as they normally can, while in company of others of their own age".
- Students in the Special Opportunity Classes did as well as students who didn't participate in the classes but also learnt much more and were happier having found like-minded peers (Silverman, 1992).

Using the P.S 165 studies as its foundation, L. S. Hollingworth wrote the first textbook in gifted education - 'Gifted Children: Their Nature and Nurture', in 1926. The data collected from her study at P.S 165 was the basis of numerous papers (over 30) which were based on the rigorous cognitive, physical and psychological testing administered to these children over time (Klein, 2000).

L. S. Hollingworth's other major study (1936-1941) involved the creation of Public School 500 (P.S. 500), Speyer School, a school especially for exceptional children. The school's goals were to "teach (nurturing the children's abilities) and study exceptional children – the gifted and cognitively disabled", (Klein, 2000, pp. 102-103; Silverman, 1992). Two of the classes, called Terman Classes (in acknowledgement of the work Terman was doing with gifted children), consisted of 25 students, testing at or above 130 IQ, each with an equal number of girls and boys between the ages of 7 and 9 years old. L. S. Hollingworth (1936 in Jolly, 2006, pg. 32) was determined that the students represented all socio-economic groups and "all ethnic stocks in the city" with 23 different national backgrounds eventually represented (Klein, 2000; Silverman, 1992).

Based on what L. S. Hollingworth learnt in the P.S. 165 study, her main approach to meeting the needs of the gifted students in P.S. 500 was developing an enriched curriculum by expanding and modifying the regular curriculum (Jolly, 2006). As with the P.S. 165, the regular curriculum was condensed/ compacted into the first half of the day, with the second half devoted to enrichment activities. L .S. Hollingworth also sought to address their emotional education. Teachers of the Terman classes were selected from their past teaching records, their interest in experimental work and their high rating of "all the qualities which win and keep the respect of intelligent children" (Hollingworth, L. S., 1936 in Jolly, 2006, Pg. 32).

L. S. Hollingworth (Hollingworth, H. L., 1943) acknowledged that there was little point providing the Terman Classes "with mathematics, languages and other 'abstract' material as 'discipline'" or introducing them to subjects that they would later do in high school and college (p 165). Therefore, a student-centred, thematic and interdisciplinary enriched curriculum was devised called the 'Evolution of Common Things', as it was observed that these children wanted to explore their world (Hollingworth, L. S, 1940a; Jolly, 2006; Klein, 2000). The students, with the encouragement and guidance of their teachers, gathered their own learning materials making them into work units, with activities from other school work integrated into the work units (Klein, 2000). Evaluation of the students' work was based on a variety of data such as teacher anecdotal notes, standardised achievement tests, student self-assessment and group assessment (Klein, 2000), all which are used today as methods of authentic assessment. The completed material from each work unit was published by the Board of Education in a 'Curriculum Bulletin' to demonstrate what the Terman Classes could achieve with only guidance from their teachers (Hollingworth, H. L., 1943).

It should be noted that the curriculum for other the classes (Binet classes) in P.S 500, consisting of students with IQs between 75 and 90, was as radical as that of the Terman Classes. Students learnt at their own pace and in their own way with field trips an integral part of their program (Klein, 2000). In what is known today as 'mainstreaming' or 'inclusion', the social philosophy of P.S 500 revolved around tolerating and respecting individual differences with the Binet and Terman classes interacting socially on a daily basis (Klein, 2000). Students from the Binet and Terman classes jointly served on the Student Council, the school newspaper, the boys' basketball team and a Girl Scout troop.

Although L.S. Hollingworth (1939a in Jolly, 2006,) concentrated on the early grades in elementary schools as she believed that it was at this time that the "very intelligent student needs supplement to the standard curriculum", (p 33) she was aware of the problems these children experienced as they transitioned to high school. With some of the Terman class students preparing to enter high school, L. S. Hollingworth and high school educators determined how they could cater for the needs of these students (Hollingworth, L. S., 1936; Jolly, 2006). Outcomes included deciding that age 13 was the best age to transition to high school as they were less likely to experience the social issues of emotional and physical immaturity that the students from the P.S. 165 students experienced; with students with IQs between 130 and 150, most likely to have their academic needs met by participating in segregated groups under the honour school concept. L. S. Hollingworth also recommended students, with IQs greater than 150, would benefit from additional enrichment to college preparatory classes (Jolly, 2006; Klein, 2000).

The four questions that L. S. Hollingworth suggested were the most crucial in gifted education are still being debated in some form today (Hollingworth, L. S., 1931a, pg. 196 in Klein, 2000, pg. 101). These were:

"1. Can American Schools identify and recognise gifted children and make provisions for their education?
2. Should the problem of appropriate work be solved by acceleration at a rapid rate through school grades?
3. Should the problem be solved by enrichment of the prescribed curriculum without acceleration and without segregation?
4. Should gifted children be segregated in special schools or classes, and be educated by combining enrichment with a moderate degree of acceleration?"

In answer to those questions, through her research, L. S. Hollingworth asserted that it was possible to identify gifted children with the IQ test being the most accurate and valid measure of intelligence at the time (Klein, 2000). She considered children testing in the top 1% (IQ 130-180) were gifted but acknowledged her definition was arbitrary, adding that "we could just as well choose the top two per cent to be called 'gifted' or the top one-half of one per cent" (Hollingworth, L. S., 1931, pg. 196 in Pritchard, 1951, pg. 49). She also noted that mental tests provided a more democratic procedure in identifying gifted students than relying

only on parents' financial status or teacher nomination or school test scores (Pritchard, 1951). However, although a great advocate of psychometric testing, L. S. Hollingworth believed in using multiple criteria to identify gifted children (Jolly, 2005). These included parent and child interviews, teacher and principal nominations and examination of the social and emotional maturity levels of a child (Klein, 2000). Thus, L. S. Hollingworth was one of the first advocates of using multiple criteria when identifying gifted children (Silverman, 1992).

In 1927, L. S. Hollingworth stated that the field of giftedness was "still too embryonic for established and static terminology" (Jolly, 2006, pg. 39). L. S. Hollingworth (1926) in her early studies limited the definition of giftedness to the top 1% of students testing well above average in standardised tests as little was known about how to measure special talents. Over the course of her research, L. S. Hollingworth also developed lists of behaviours and traits that characterised gifted children (Jolly, 2005; Pritchard, 1951). In the 1930s, she "began to acknowledge that giftedness could manifest itself in additional ways" ….. acknowledging that "the Stanford-Binet test measured the degree of intelligence not the kind" (Jolly, 2005, pg. 39). L. S. Hollingworth encouraged broadening the definition to incorporate such concepts as creativity and leadership even though she didn't believe that quantitative measurement tools for creativity existed at the time (Jolly, 2005). The problem of being able to objectively measure elements other than intelligence such as creativity is one that contemporary researchers still grapple with (Jolly, 2005).

Regarding the acceleration and enrichment issue, L. S. Hollingworth observed that gifted children are able to master the standard curriculum in half the time of other children, with those having an IQ above 180 wasting almost all their time (Klein, 2000). L. S. Hollingworth proposed enrichment and acceleration were ways of addressing this problem, ''…it has been found a good plan to combine this enrichment with a moderate degree of rapid progress through school" (Hollingworth, L. S., 1929, pg. 375 in Klein, 2000, pg. 101). L. S. Hollingworth claimed that homogenous grouping and the provision of accelerated learning opportunities would be the ideal school environment for gifted students (Klein, 2000). In instances where schools or district couldn't provide segregated classes, she recommended that a differentiated curriculum be implemented within the classroom to cater for gifted children (Klein, 2000). For profoundly gifted children, with IQs greater than 160, L. S. Hollingworth recommended that they be placed in a homogenous setting (Hollingworth, L. S., 1942; Klein, 2000).

L. S. Hollingworth died in 1939 before the P.S. 500 study was completed, with her work on children with IQs above 180 also incomplete, being completed by her husband and published in 1942. L. S. Hollingworth (1942) recognised a distinction within the ranges of superior mental ability, with those children with an IQ of 180 or more proving to be more of a challenge to schools as it was very difficult to satisfy their academic and social needs. L. S. Hollingworth found that these children suffered from adjustment problems and were often highly vulnerable with their intellectual development outstripping their emotional and social development. Adults also often treated them ineptly and when these students lacked intellectual challenge, they became disengaged with school (Hollingworth, L. S., 1942; Davis & Rimm, 2004).

The legacies Leta Stetter Hollingworth left the field of gifted education are numerous. She was the first to teach a college course focusing on gifted children, first to write a comprehensive textbook on the psychology and education of gifted children and has written the only book on children with IQs above 180 (Silverman, 1992; Weber, 1999). Her studies on and observations of gifted children were part of the beginning of creating a researched-based body of knowledge on the education of these children. Many of her concerns regarding the lack of educational opportunities for gifted children are still plaguing educational debate and policy decisions today. L. S. Hollingworth (1942) was one of the first to study gifted children's social and emotional development, identifying the need for and advocacy of including counselling; designing the first program for 'emotional education' (Kerr, 1990; Silverman, 1992). She observed that gifted children, particularly those with an IQ of 180+, often had difficulty forming associations with their classmates, showing no interest in the usual games and activities and failed to fit in (Hollingworth, L. S., 1942; McLeod & Cropley, 1989).

Her work on curriculum differentiation involving curriculum modification, enrichment activities and acceleration was pioneering. The legacy of this work can be seen today in Gallagher's (1983), Renzulli's (1977) and Maker's (1982) assertions that curriculum differentiation should involve the modification of content, process, product, learning environment and quality of the teacher. L.S. Hollingworth (1936) modified the curriculum content of her day, using a project method rather than the standard repetitive drills, allowing each student to select a topic that he or she was interested in and then developing a project

around the topic. Her curriculum focused on the cognitive and affective domains with enrichment activities interdisciplinary (Jolly, 2006). She modified the process element by allowing her study participants to control their learning pace, allowing them to learn in their own way with the pedagogy of the enrichment activities focusing on thinking skills now referred to as higher order thinking skills (Klein, 2000). The students of both studies were also allowed to gather their own learning materials and develop units of work based around a central theme.

An example of making modifications to product include L. S. Hollingworth's central premise, for the enrichment program theme of biography, which was an enriched curriculum should "afford them a rich background of ideas, in terms of which they may perceive the significant features of their own times" (Hollingworth, L. S., 1938, pg. 297 in Jolly, 2006, pg. 32). The reports that the Terman students wrote on completion of each unit of work were published in the Educational Bulletin and were distributed to teachers within New York City (Jolly, 2006; Klein, 2000; Pritchard, 1951). L. S. Hollingworth advocated modifying the learning environment of gifted children by ensuring it was resource-rich with a library of books and that furniture was moveable to allow for individual and group work (a departure from the norm of that time with seats and desks bolted to the floor) (Jolly, 2006). Addressing the teacher aspect in curriculum differentiation, L. S. Hollingworth ensured that teachers specifically selected to teach in her studies were highly educated with a high intelligence equal to the students, had the right attitude towards gifted children and possessed patience and a sense of humour.

Leta Stetter Hollingworth was a pioneer in the field of gifted education. She undertook two seminal studies in the education of gifted students, experimenting with strategies such as curriculum differentiation, enrichment and acceleration that are still used today to cater for gifted students. Her efforts to objectively identify gifted children using IQ tests and other criteria were part of initial attempts to identify this group of children. Identifying that gifted children require counselling or 'emotional' education was groundbreaking. L. S. Hollingworth implemented a range of innovative teaching methods for her time, including adapting learning to the child, taking a child-centred approach; individualising education and ensuring it was interdisciplinary, affective development, facilitating independent and small group projects, teaching a broad range of subjects and encouraging field trips (Silverman, 1992). She also advocated that classrooms be adaptable to students' learning needs, with

moveable desks and seats, and allowing the use of typewriters, in an age where classroom furniture was immoveable and group recitation was the norm (Silverman, 1992). Many of the issues L. S. Hollingworth grappled with and questions she asked are ones that are still relevant today.

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