

## The Development of C. A. McMurry's Type Study: Emergence of a Unit Development Theory Embedding Teacher Training

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*From the historical viewpoint, is it possible that curriculum and teacher education could have been integrated at the beginning of the era of curriculum studies? This paper focuses on the development of type study in the 1910s by C. A. McMurry (1857–1929) as a pioneering curriculum theory surveying the scope of teacher education. McMurry was a key thinker of American Herbartianism. Viewed as a sub-concept that explains key concepts of Herbartianism, the type study has not been given much attention. However, paying renewed attention to the type study developed and modified in the 1910s present a curriculum theory embedded within teacher education. In the 1910s McMurry had stubbornly connected the contents of type study with large social enterprises, i.e., projects, which required the organic integration of knowledge in the specific context. The development of concept from type study to project did not imply that of methodology. Even though he used the phrase 'teaching by projects', he never used the expression 'project method', in spite of admitting that the method was in fashion in the 1920s. It is evident that he was thinking of what is now called pedagogical content knowledge (PCK). If the process of unit development is regarded as reorganization of PCK, it is inevitable to take into consideration the existence and expertise of teachers in the actual context. McMurry's pursuit of unit development literally demonstrated this as a precursor in the 1910s. There is no doubt that factors such as his positions and the impact of his second visit to Germany contributed significantly to his reasoning, but the nature of type study, i.e., project, consequently led him to the practice. It was only toward the end of the 20th century that a highly professional nature of the teacher's expertise began to be realized in curriculum study. In light of this, McMurry's type study, i.e., project, was truly groundbreaking.*

**Keywords:** American Herbartianism; C.A.McMurry; type study; project; teacher training

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## 1. Introduction

Curriculum Studies have become deeply entwined with teacher education study since the 1980s. In this process, the expertise of teachers has been defined and redefined as a professional reflective practitioner, as implied by D.Schön (1983). From the historical viewpoint, is it possible that curriculum and teacher education could have been integrated at the beginning era of curriculum studies when it was theorized by F. Bobbit (1876–1956) in 1918? Seguel (1965), who discussed the historical process of curriculum development specialization, pointed out that American Herbartianism contributed especially to improving teachers' professionalism by providing a terminology for didactic theory giving each of its elements a specific term, and thus beginning the theorization of curriculum.

This paper focuses on the development of type study in the 1910s by C. A. McMurry (1857–1929) as a pioneering curriculum theory surveying the scope of teacher education. McMurry was a key thinker of American Herbartianism, examining the views of Johann F. Herbart. He also contributed to teacher education as a faculty member of normal schools and a teachers' college. In this sense, McMurry himself can be regarded as a precursor of combining curriculum studies and teacher education.

Viewed as a sub-concept that explains key concepts of Herbartianism, the type study has not been given much attention. However, paying renewed attention to the type study developed and modified in the 1910s will present a curriculum theory which embeds teacher education. This, then, will lead to evaluating American Herbartians' contributions to teacher education through the actual practice of type study beyond the level of terminology argued by Seguel and to repositioning their curriculum theory in its proper place.

## 2. American Herbartianism and the Appearance of Type Study

As industrial modernization progressed, school curriculum became the focus of attention, and the authoritarian inculcation of knowledge as represented by the liberal arts began to be questioned in the 1890s. C. DeGarmo (1849–1934), C. A. McMurry, and F. M. McMurry (1862–1936), who had all studied under Herbartians in Germany, spread Herbartianism in the United States. In 1895 The National Herbart Society for the Scientific Study of Teaching (NHS) was founded. It is noteworthy that the type study was presented in 1894 as type studies in geography before NHS was launched. In 1895 McMurry further explained that the type study with its attractively concrete and realistic nature is characteristically suited for representing the significant breadth of geography, and the type study in geography will incidentally bring in the contents of nature study and history. Thralls and Reeder (1931) pointed out that the type study was first advocated by McMurry, and it met the conditions of modern geographic study. McMurry was aware of the possibility that putting geography curriculum in place might lead to a new framework that could replace concentration. Although the concept may not have been powerful enough to be called an organizing principle of curriculum, it can be said that the concept of type study served as an impetus when the linchpin of curriculum study turned from concentration to correlation in the latter half of the 1890s, i.e., at the height of the movement.

Actually, all was not well in primary education classrooms in the 1890s. One report mentions a situation observed in 1897: "The average pupil, whether boy or girl, attended a

one-room school, and was taught by a young woman who had little if any training beyond the elementary subjects... he [i.e., the average pupil] spent 70 percent of his time on the formal subjects, which were taught in a very mechanical manner (Robbins, 1924, p. 228)."

The discussions at NHS expressed concerns about curricula becoming increasingly densely-packed, and in this regard the Herbartians were blind to the needs of the existing classrooms. In any case, the fact remains that the improvement of educational content notwithstanding, educational method was out-dated and the Herbartians had to undertake the task of solving both problems in an integrated manner.

### 3. Evaluation of American Herbartianism in the Context of Curriculum Development History

Kliebard (1987) saw that the Herbartians resisted the traditional framework of Harris from the Committee of Fifteen, but Kliebard's discussion was mainly about the repercussions of applying recapitulation theory, i.e., culture epoch theory to curricula, and his reference to the Herbartians is limited to their contributions to Dewey's curriculum theory formation. Seguel (1965), an invaluable researcher preceding Kliebard, made the concept of curriculum the object of discussion. She treated various Herbartian concepts more carefully on the basis of their structural relationships with one another. She discovered the term 'type study' in *The Elements of General Method* (1903) and pointed out that McMurry was using it as a tool for explaining the idea of correlation. Focusing on the height of the movement in the 1890s, she evaluated how American Herbartianism contributed to the relocation of the dramatis personae in education, pushing the teacher and the child to center stage and relegating theoreticians and administrators to the back. However, she did not follow the type study beyond the 1910s.

D. McMurry (1946), Dunkel (1970), Westfall (1975), Shoji (1985), Sato (1990), and Cruikshank (1993) give overall pictures of the whole movement. The main object of their discussion is curriculum organization kits for history and literature, and key concepts such as concentration are explained and critiqued. They all agree that the movement came to a halt around the time when the name Herbart was removed from NHS, sometime between the end of the 19<sup>th</sup> century and the 1910s, and the type-study method and the project method, which came later, are not deeply dealt with in their works. Dunkel, who was the first to discuss American Herbartianism systematically, ascribed the demise of Herbartianism to the progress in psychology propelled by E. L. Thorndike (1874–1949) and others. It was fatal, Dunkel wrote, that the psychology on which Herbartianism based itself was unscientific, or even anti-scientific. When the times were shifting to child-centeredness, "steps of instruction" were being emphasized. This must have given the impression, he pointed out, that Herbartianism was not only anachronistic but a complete fallacy. Shoji and Sato pointed out McMurry's development of type study as problem-solving units, but they did not mention how it functioned as teacher training. Sato noted that Herbartianism developed its unit theory as a teaching-material theory that was immediately applicable to inductive and deductive thought processes, that types were later recognized as the basic principles of unit composition, and that modifications like this occurred around 1910, and the didactic theories originating in Herbartianism made their own progress and went beyond it.

Cruikshank, by drawing on the phenomenology of individuals and their institutional relationship, drew a dynamic picture of how it was possible for Herbartianism to function as an

educational reform movement. Cruikshank describes in detail the circumstances and conditions, including human relationships, that were pertinent to the birth of the Herbartian movement, and she surmises that it was the disappearance of those conditions that caused the decline of Herbartianism. Specifically, she cites McMurry's transfer to Nashville in 1915, which she sees as his disengagement from the organizations and personal relationships that must have been giving life to the movement in and around Illinois. Tyler (1982) traced McMurry's life, describing his family background, duty positions, and personal relationships. Tyler considers McMurry's type study to be disconnected from Herbartianism and thinks there was a defection.

Researchers who discussed Herbartianism as part of the history of social studies as a school subject took notice of McMurry's type study in the early 20<sup>th</sup> century. Akenson and LeRiche (1997) discuss changes in McMurry's type study concept and its influence on social studies in elementary school education. They regard the type study as the idea that revealed McMurry's integrated view of elementary school education. Unfortunately, they end up trivializing the concept by treating it as a matter of selection and concentration of knowledge in just one area, social studies. They also overlook the effects the idea had on the training of teachers.

#### **4. The Practice at Northern Illinois State Normal School**

In 1915 McMurry published a paper titled "The Practice School The Laboratory of the Normal School" which stressed how he was collaborating with the teachers to develop units based on the reality of the classroom. His two unpublished essays written during his sabbatical leaves in 1913 and 1914, "The Public Schools of Dekalb" and "The Training School Department of Normal School", which described public schools and the normal school in Dekalb in the 1910s, are valuable reports in that they give us the feel of the actual scenes of this unit development.

In Dekalb in the mid-1910s, there were one high school and four public schools. The four public schools were Ellwood School, Haish School, Glidden School, and Normal Training School. Glidden School and Normal Training School each had a small recitation room for teacher training. According to another essay<sup>1</sup> of McMurry (Training, 1914), these two schools actively accepted trainee teachers, and they also had a special room in the basement for construction and shop work. Most of the teachers were students and graduate students of the normal school and were very cooperative. Once a month they met with the superintendent of the district, who was also the principal of the normal school, and talked about relevant matters. The four schools shared the same course of study and its contents were printed in a pamphlet<sup>2</sup> of the normal school. The course's educational objective was the formation of moral habits derived from Herbartianism, and McMurry was very proud of the content of the course of study. Although the term "type study" was not used in it, it was in essence curriculum organization based on the type-study method in that it was composed of a few but important matters without being caught up in trivialities. Hurst (1948) noted "the 'type study' which has so influenced elementary education was developed at Normal, Illinois (Hurst, 1948, p.70)," where McMurry's practice in Dekalb also had much impact. His type study prevailed in Illinois through Illinois State Normal University and Northern Illinois State Normal School.

The schools in Dekalb were becoming a place where children enjoyed their work and showed remarkable transformation. His method, though experiential, was in keeping with the actual classroom and therefore more realistic as an educational theory, as practice, and as a unit

development theory than some newly proposed methods.

McMurry (Training, 1914) gives examples of educational content and writes specifically about manual training designed for children living around the attached school. His course of work devotes half of the upper grades to experimenting with shop work. He was definitely conscious of the practice according to progressive education, which was coming to the forefront. But the crucial difference from radical progressivism was that there were steps in the acquisition of knowledge. His plan was to devote the first five years to knowledge acquisition and then apply thus acquired knowledge to real life. Behind this plan was clearly the framework of formal steps for just one recitation time, albeit on a different scale. His understanding that knowledge is for application to real life revealed the limitations of employing only an experiential method. Experienced teachers were hired, especially at the aforementioned two schools, to ensure high quality education to the children and at the same time to impart their expertise to young teachers.

Right after this, in 1915, he moved from a milieu where his main job was teacher training to another where collaborative research with teachers in service was possible. He may have felt limitations to his curriculum development in a teacher training institution as some preceding researchers<sup>3</sup> pointed out. However, it is hard to agree with their argument that Illinois, the locus of Herbartianism, deterred him from going forward with a new theory and practice like the type study, as Tyler (1982) deemed, because these essays show that McMurry felt confident of the effectiveness of his theory after the bold experiments already done in Dekalb. However, he strongly felt that testing the course of study centering around type studies in a closed environment of a teacher training school, its attached school, and a couple of public schools in a place far from urbanization would hinder its propagation. George Peabody College for Teachers (GPCT) in Nashville, which exerted great influence on teachers, must have seemed a very attractive place to deepen his research and practice.

## 5. Revisit to Germany and a Turning Point

Preceding researchers pay little attention to McMurry's revisit to Germany in 1913, but it is hard to miss the effects on his later thinking, and it may even have been one of the reasons for his decision to transfer from a normal school to a teachers' college.

In an unpublished essay written in 1913, "Changes in German Schools in Twenty-five Years", McMurry referred to the high quality of teacher training there rather than examining how the Hebartianism he had learned twenty-five years earlier had changed in its birthplace, Germany. McMurry attributed this to the fact that in Germany teachers were highly trained both in academic and practical aspects, and this was achieved by active involvement of colleges and universities. He noted that highly academic discussions were conducted on the basis of daily practice and criticized the tendency in the United States that discussions always revolved around theoretical aspects, and practice was neglected.

McMurry left a small note<sup>4</sup> with the title "Contribution of Endowed Teachers College". It was written from the raised awareness of the need to reform teachers' colleges in the United States. He wrote that teachers' colleges should be the place where scholarship and practice are combined, where important problems in education that average teachers without time or resources find difficult to solve are discussed and explored. He saw limitations in the situation

where normal schools and teachers' colleges were set apart from each other, each doing their own thing. He thought solving problems in the course of practicing curriculum required highly academic methodology and for the moment had to be solved by experts other than teachers, but in the future teachers would be expected to have expertise in both (McMurry, Contributions, 1913).

## 6. Development of Type Study with Teachers and Signs of Project at GPCT

Immediately after taking up his new post at GPCT, McMurry began to publish *Type Studies and Lesson Plans of the George Peabody College for Teachers* with the help of a collaborative editing group organized by students<sup>5</sup>. First prints and editions were published from 1915 to 1919. Many of these pamphlets, or units<sup>6</sup>, were later repeatedly reprinted, which indicates their broad influence over teachers. Among these bimonthly pamphlets three volumes published in 1917 featured McMurry's commentaries and guidance. In number one of the second volume, he explained how to deal with the unit "The Salt River Project" and discussed the instruction method of large units in general. In number five of the same volume, he presented a course of study and explained the ideas behind it. In number one of the third volume, he sorted out the general discussions of large units. These explanations were published in 1920 with additions and revisions as *Teaching by Projects*.

In one of these pamphlets McMurry (1917, Oct.) defined types as strategic centers of thought, and wrote that more textbooks beginning to employ large units attested to the fact that large units themselves were both instruction principle and learning principle. In other words, content and method were inseparable, and how well the child learned depended on how knowledge was presented.

He also wrote that units that were specific, objective and organic had already been practiced and tested successfully in many schools. McMurry (1917, Oct.) said studying about the process of a large social infrastructure like the Panama Canal was intellectually stimulating and school-age children were fascinated by large enterprises, i.e., projects, as younger children were by the legends of giants.

Following the proposal of "The Salt River Project", McMurry (1917, Feb.) explained how to teach large units using this particular unit as an example. According to him, in order to put large units into practice "thoroughness" is required of the teacher. The relevant knowledge must be completely digested and organized within him or her. If not, the actual instruction will end up being haphazard or revolving around trivialities unrelated to central questions.

This pamphlet aims to help teachers in instruction, but careful reading reveals a remarkable curriculum theory. When students study "The Salt River Project," various kinds of knowledge required to build a dam are marshaled from other studies and thus the first correlation, correlation across studies, occurs. Then they can learn about the situations in other countries by comparing "The Salt River Project" with irrigation systems in India, China and Egypt, which is the second correlation.

His curriculum appears to be very static with the contents to be learned already in place, but in the discussion of the relations between "a project," "problems," and "questions" he wrote: "A project that opens into a succession of problems is just a series of main questions; for each problem may be put in the form of a question (McMurry, 1917, Feb., p.41)." This was his defi-

nition of "project," and he saw an organically self-expanding element among the three as a three-dimensional structure. In his view, despite the fixed nature of the curriculum, the dynamism within it gave rise to learning.

Meanwhile, McMurry's contemporary educators also tried to categorize the project method, and some discussed McMurry's concept of project. Robbins wrote: "The recent attention given to method of teaching through use of problems and projects can be traced back directly to the Herbartians. The project is but the evolution of the type study (Robbins, 1924, p. 238)". In the interpretation of Mitchell (1926), McMurry's project meant an adult project in which children might have enough interest to engage themselves in in the future, and the idea was already concretized as type studies. After reading McMurry's project as the type study and comparing it with the project method as defined by Kilpatrick, Mitchell concluded that the type study was a curriculum organizing principle whereas the project method was an instruction method.

Before Kilpatrick, the idea of project had been seen sporadically in such education fields as agriculture and manual training (Prewett, 1950). However, after the mid-1910s it can be said to have been structured by C. A. McMurry in subject matters such as geography and history, although the term project was not yet used.

After the mid-1910s the type study was effectively the project method according to the analysis of McMurry's contemporary educators.

## 7. Teacher Training Embedded in the Type Study

How best to train and enhance teachers through type studies is most clearly expressed in his paper *Teacher Training Based on Type Studies* in one of the above mentioned series of pamphlets, number four of the third volume in 1918.

Examples of teacher training through unit development can be found in his supervision of graduate students. Most notable among them are many type study units developed by his graduate students presented in place of theses for a master's degree, which McMurry judged as chair of the thesis committee. It was common for graduate students who were also teachers in service to undertake unit development as their finishing work. Many of these units have "type study" in their titles, and their production was kept until the end of 1920s<sup>7</sup>. Subject matters included not only geography and history but nature study, mathematics, and even health science. Many of the units were for secondary education. Type study was mainly discussed for elementary education at that time. Their master's theses were very experimental. Since McMurry had written that developing units itself served as teacher training, it was a matter of course for him to have his students develop a unit, practice it in the classroom, and turn the whole experience into a paper. Many of the master's theses until about 1920 employed type studies in accordance with McMurry's framework. There was some overlap in the actual cases they used, e.g., railroad building, but their main concern was alleviating the curriculum overload (Swanson, 1917). Bailey (1923) placed type studies on an apperceptive basis, and Wright (1925), in his unit for measurement in mathematics, emphasized the importance of selecting materials that derive from the needs and necessity that arise in children's lives<sup>8</sup>. Each was written from the viewpoint of a teacher in service, and for this very reason the question of the relationship between teachers and type studies arose. Did a teacher's expertise lie in developing type studies or in mastering and letting them take effect in the classroom, or in both? This question seems to have been a concern of

McMurry's too.

He thought creating a large unit was desirable and beneficial but extremely difficult for teachers and estimated it would take three to four months for one person working alone. He recommended that teachers use units developed by experts and learn from those examples both content and method. He was all for the idea that teachers in training and graduate students take their time in creating large units and develop their expertise. However, considering the inexperience of young teachers he preferred to discuss the expertise in unit development and that in practice separately. This was due to his experiences teaching at a normal school in Dekalb on one hand, but on the other he was trying to reconsider the *raison d'être* of the faculty of normal schools and teachers colleges, who tended to be removed from practice. Thus he wrote that units in type study theory were primarily developed by specialists who were "in the same boat (McMurry, 1918, Aug., p.19)" as teachers, and also argued that creators of large units like projects should be "well-trained experts who have plenty of time and abundant resources of knowledge (McMurry, 1917, Oct., p. 35)." Teachers were expected to share the outlines and to make appropriate selection and rearrangement of the contents. The units were designed especially to benefit young teachers, and in this sense they could serve as textbooks for them. McMurry (1918, Aug.) emphasized that type studies as textbooks which focus both on theory and practice would contribute to teacher training, improving the education of teachers in service, and saving time. A type study was used for prospective teachers in two ways: in one, students observed a practice case and discussed it; in the other, students themselves practiced it and were reviewed by supervising experienced teachers.

He also argued that an existing course of study which was poor in content and organization should be altered. This was the reverse of his earlier arguments. Earlier he had said that units should be developed by interpreting the course of study appropriately and finding a center thought and a line of thought in it. Now he was saying that the course of study should be changed so that large units could be relevant. It is evident that he expected the collaboration between specialists and teachers to realize the development of their own curriculum based on the actual classroom situations.

He often suggested taking part in 'reading sessions' in the community centers or traveling around in summer as good ways for training teachers. It is noteworthy that he particularly argued that experiencing 'critique lessons'<sup>9</sup> would be especially effective. To him these were the milieus for testing large units, and at the same time these were the processes of curriculum development by teachers and specialists. While existing textbooks were not revised very often, type studies could be refined through the process of repeated modification in the context of the classroom, which also contributed to improving teachers' abilities.

Here are the four specific aspects of instruction implying the expertise of teachers: "1. Question-asking technique, 2. Offering the chance of solving problems, 3. Development method, 4. Embedding by reviewing (McMurry, 1917, Oct., p. 30)." The development method had already appeared in McMurry's books<sup>10</sup> in 1914. Realizing the shortcomings of the traditional and literal recitation, he proposed the development method as a way for teachers to give children thinking time, a so-called study period. It was a way to enable children to acquire new knowledge for themselves by throwing them into pre-existing knowledge and then asking questions about it and discussing it with them. Large units fit naturally into this oral instruction which works through question asking, and this is why McMurry thought teachers' abilities could be improved by practicing type studies.



Behind the proposal of the development method was a very radical idea about the relationship between the teacher and children: "The teacher must know how to keep himself in the background, to unload the burden of thought and expression from himself upon the children, to guide the process of thought skillfully by an occasional suggestion or criticism, but to remain to a large extent a silent spectator. The child should learn to do things on his own responsibility. He is to understand that he does not know a thing till he can give a full account of it from his own point of view, and from his own feeling of mastery. Let the teacher keep his hands off and let the child struggle with his own problem (McMurry, 1917, Oct., pp. 38–39)."

This part was removed from the revised edition (1922), but in 1917 he needed to change the meaning of instruction drastically in order to practice large units. The relationship between the teacher and children aimed at in development method clearly shows McMurry's progressive tendency.

The implementation of projects other than McMurry's was encountering extreme difficulties because, except in some advanced experimental schools, teachers' lack of competence was exposed in the process of practicing projects. The type study units, however, contained the function of training teachers and enhancing their abilities. McMurry saw dynamism in the process of developing these units which took into account constant revisions based on practice.

## 8. Conclusion

This paper has followed the development of C. A. McMurry's type study concept up to the time when the idea of project was officially presented in 1920. It is generally thought that the decline of discussions about just what teachers should teach means that of American Herbartianism. That was also said to mean the appearance of progressive education. However, it only mentioned the changes of center or core, i.e., from discipline to child. The framework of argument was still the same as that of searching for what the center of concentration should be in the 1890s. McMurry might have believed that such a change was not at all practical.

In the 1910s he had stubbornly connected the contents of type study with large social enterprises, i.e., projects, which required the organic integration of knowledge in the specific context. To him the development of concept from type study to project did not imply that of methodology. Even though he used the phrase 'teaching by projects', he never used the expression 'project method', in spite of admitting the method was in fashion in the 1920s. It is evident that he was thinking of what is now called pedagogical content knowledge (PCK). If the process of unit development is regarded as reorganization of PCK, it is inevitable to take into consideration the existence and expertise of teachers in the actual context. McMurry's pursuit of unit development literally demonstrated this as a precursor in the 1910s. There is no doubt that factors such as his duty positions and the impact of his second visit to Germany contributed significantly to his reasoning, but the nature of type study, i.e., project consequently led him to the practice. It was only toward the end of the 20th century that a highly professional nature of the teacher's expertise began to be realized in curriculum study. In light of this McMurry's type study, i.e., project was truly groundbreaking.

In the 1920s, he preferred to use the term project. The task of describing in more detail the further development of the idea through the 1920s still remains.

Questioning what gave rise to the evaluation of Herbartianism in its juxtaposition with

progressivism can lead to an inquiry into the generation of dichotomies in educational discourse. Cruikshank saw Herbartianism as a movement which emerged with its emphasis on human relationships and its own theory of organization. Through following McMurry and others after 1915 in this light, progressivism will reappear and be redefined as a multi-layered and intricately hybrid movement. This multi-layered and complex movement, which greatly influenced the new education in Japan after World War II, deserves a fresh look into its curriculum theory and its educational practice and deserves re-evaluation.

### Supplementary Note

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### Notes

1. This essay has no date on it. It is presumed to have been written in 1914 as a memorandum for the article "Course of Study for the Training Department", *Northern Illinois State Normal Quarterly* v.11, (1914).
2. The course of study referred to here was published before 1903 but it seems to be the same as the one printed in the pamphlet of the normal school: McMurry, C.A. (1914, May). Course of Study for the Training Department. *Northern Illinois State Normal Quarterly* v.11, pp. 56–141.
3. See Tyler (1982), Cruikshank (1993).
4. It was most probably written in 1913 during his revisit to Germany because McMurry wrote "Jena" at its end.
5. McMurry's two sons Donald Lecrone McMurry (American historian) and Kenneth Charles McMurry (geographer) cooperated with him in unit development in this period.
6. One unit or a few were treated as a form of a textbook for both students and teachers on one pamphlet.
7. GPCT was later absorbed by Vanderbilt University, in the Special Collection of which many master's theses with C. A. McMurry's signature as chair of the committee are stored. Nine of them include 'type study' in their titles.
8. He cited an anecdote about McMurry's daughter trying hard to measure the height of her doll in order to make a bed for it.
9. The 'critique lessons' can be regarded as current 'lesson study' sessions. It is noteworthy that already in the 1910s McMurry insisted on the lesson study as a good way of teacher training or teacher education. The background must be reviewed in another paper.
10. *Conflicting Principles in Teaching and How to Adjust Them*, and *Handbook of Practice for Teachers: Practical Directions for Management and Instruction*.

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