

Piloting a Peer Literacy Program: Implications for Teacher Education*

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To pilot a peer literacy program, a pretest-posttest study was conducted involving seventy (70) students from Arellano High School as tutees and 12 De La Salle University-Manila College of Education students as reading tutors. Though the results suggest the lack of impact of the Program on the Reading Grades of the tutees, the tutors' journals reveal that the tutors benefited more from the program. The problems in using the National Service Training Program or NSTP as the vehicle in piloting the program were identified and based on this, the study suggests ways to improve the content and delivery of future NSTP Peer Literacy Programs.

Key Words: Peer Tutoring, Cross-age Tutoring, Collaborative Learning

Peer tutoring (PT) is a cooperative/collaborative teaching and learning strategy where the learners of about the same age teach and learn from each other. Schmuck and Schmuck (1997) describe it as "one mechanism through which students are not only given responsibility for their own learning, but also for the learning of others" (p. 82). Related to PT, cross-age tutoring is a learning set-up where the tutors are a few years older than the tutees (Thomas, 1993). Peer/Cross-age tutoring has vast potential as a supplementary educational program, especially in countries where there are teacher shortages. It is a form of pedagogy that many people are

familiar with because in many cultures parents (the experts) teach some basic skills and knowledge to their older children, who in turn are tasked with passing on this skill/knowledge to their younger siblings. Unfortunately it is confined to informal learning situations because formal education, "structured around the traditional belief that knowledge is best transmitted from adult to child in linear fashion" (Damon & Phelps, 1989b, p. 136 cited in Kalkowski, 2001), has been and still is the dominant discourse, but this assumption is slowly being challenged. For example, Topping (1996), Topping and Bamford (1998), Burks (2004), Topping and Bryce (2004) and Boudouris (2005) boldly make claims as to the effectiveness of peer tutoring.

Various benefits of peer tutoring have been identified: tutors themselves learn the content more deeply by teaching it (Whitman, 1988; Schmuck and Schmuck, 1997; Reed (n.d.); "children learn to share, to help, to comfort, to empathize with others" (Thomas, 1993); some problem cases which regular classroom environments cannot reach are addressed by collaborative learning (Bruffee, 1999). In *Children Helping Children*, Myrick and Bowman (1981) note that peer facilitator programs not only present learning opportunities specific to the subject area but also impart valuable general skills such as communication and coping skills, being able to get along with peers, participating in responsible decision-

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making, and being able to harness human and other resources to improve the learning atmosphere.

What is more significant is the observation that benefits are enjoyed by both tutor and tutee. In support of this observation, Reed (n.d) noted that in using peer tutoring programs for the academically deficient student, the tutors developed their self-confidence and self-esteem, honed their teaching techniques, in addition to enjoying some financial assistance. On the other hand, the tutees were inspired by peer role models who used to have problems similar to theirs. In another study, Fitzgerald (2001) tried out 40 “minimally trained [only 30 hrs of training] college student volunteers” as reading tutors to 144 at-risk children from four elementary schools in North Carolina. The study’s main findings were the positive effect on the reading achievement of the children and the benefits of the program also to tutors and program supervisors. Davenport, Arnold & Lassman (2004) and Medcalf, Glynn & Moore (2004) likewise noted the benefits of PT to both tutors and tutees in their studies.

The effectiveness of peer/cross-age tutoring is based on four theoretical perspectives. Murray (1994) explains that each theory focuses on a characteristic of cooperative/collaborative learning. One theoretical underpinning is the Social Learning Theory as it applies to teamwork. Based on the principle of reward, a pupil will work hard to earn the admiration and praise of his classmates or will strive to be like his/her classmate who is praised by the other pupils. Another basis is the Piagetian theory, focusing on conflict resolution. Applied to cooperative learning, it works by involving two or more students who disagree about the answer to a problem. By requiring them to arrive at a common answer, the students are forced to examine their own and the other’s answers. Arriving at a consensus is oftentimes easier in peer/cross-age tutorials because tutees and tutors communicate better with each other, often talking the same language, because of the proximity of their ages and their experiences. The third perspective is based on Vygotskian theory, especially as it applies to community collaboration. Vygotsky believed in the importance of social interaction in the child’s process of learning. “Unlike Piaget, Vygotsky believed that children gain significantly from the knowledge and conceptual tools handed down to them by those who are more intellectually advanced, be they peers, older children, or adults.” (Snowman and Biehler, 2000, p. 53). Calling the range between what children can learn independently and what they can learn with some assistance as the *zone of proximal development*, Vygotsky asserts that giving tasks/lessons slightly above their levels of independent learning can

facilitate early learning. (Omrod, 1995; Bigge & Shermis, 1999). Based on this, tutors who are a few years older and with the advantage of an academic head start over tutees are predicted to have a positive impact on their tutees. The fourth theoretical perspective comes from cognitive science theory. Applied to reciprocal teaching, a feature of collaborative/cooperative learning, a student gradually develops “a new conceptual model for the skill” as his/her understanding of the facets of a task deepens.... The cooperative learning features of these expert-novice teaching procedures lead the pupil to integrate the multiple roles that the successful problem solver inevitably masters.” (Murray, 1994, p. 10).

Based on the above, the literature has established the effectiveness of peer/cross-age tutoring in same-class/same-school settings. Another point of agreement in the literature is the importance of the training given to tutors. (Gartner and Riessman, 1993; Thomas, 1993; Wasik, 1998; and Boudouris, 2005). What has not been studied sufficiently is if peer/cross-age tutoring would succeed in a cross-school set up using a compulsory service program of government. How tutors would be trained and how the program would be implemented, given the constraints of such a set-up, are the concerns of the present study.

The Problem

The National Service Training Program or NSTP, created through RA 9163 and passed by the 12th Congress of the Philippines, makes it compulsory for all college students to render government service through any one of its three components: military training, literacy training, and community service. (The Lawphil Project – Arellano Law Foundation, 2002). Given the college student population in the Philippines, this translates into thousands of youths serving various communities at any one time.

In implementing the NSTP, each school is expected to have the three curricula. However, among the three components, the least developed, even among the major schools in the Philippines, is the literacy program. This situation prompted the researcher to design and pilot one in the College of Education of De La Salle University (DLSU), using as a laboratory one of the less endowed high schools in Manila under its care, the Arellano High School (AHS). A peer/cross-age tutoring program thus presented itself as a logical activity, with these special dimensions: 1) the tutors come from rich families but the tutees are from poor families; 2) DLSU follows a trimestral schedule whereas AHS does not; and 3)

attendance in the literacy program is required of DLSU tutors because it is the NSTP component but it is optional for AHS students. Following the suggestion of the principal of AHS at that time, the program was to be both a review (of previous selections) and a reading program in support of the English class.

Given these parameters, the study attempted to find answers to the following questions:

1. Is the tutor training program adequate?
2. Is the cross-age, cross-school reading/literacy program designed for the target students effective?
3. What is the impact of the cross-age tutoring on the tutors?
4. Is the NSTP an effective vehicle for a cross-age, cross-school tutoring program?

Methodology

Selection and Training of Tutors:

The researcher chose 15 freshmen students from the College of Education who scored high in the English and reading tests in the college entrance test. After agreeing to participate in the tutorial project, the tutors were informed that they would undergo three tutorial training sessions to prepare them for their work as peer tutors and that failure to attend even one session would mean disqualification from the project. The final list of tutors consisted of 12 students (pls. see names of tutors at report end).

The idea of using minimally trained tutors came from Baker, Gersten, and Keating, 2000 and Fitzgerald, 2001, who found out that even a little training of the tutors resulted in effective collaborative learning with their tutees. Thus the project predicted this:

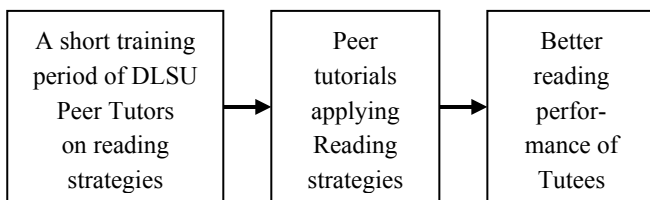


Figure 1. Conceptual Framework of the Peer Literacy Program

For three Saturdays prior to the implementation of the project, the tutors were trained by teachers from the Department of English and Applied Linguistics of DLSU in

the use of reading strategies such as using a story map, semantic webbing, predicting, preparing graphic organizers, etc. Additionally, during this time, the researcher met with all the tutors for briefings on procedures and requirements. The researcher gave each tutor a Tip Sheet on what to do every session and how to conduct themselves. A suggested schedule of selections and a sample lesson log were also presented to them as guides. To earn a passing grade in NSTP, they were told that each tutor pair was required to submit a lesson log at least a day before the tutorial session, a joint journal at the end of each phase, all materials, outputs, quizzes, if any, of each session, and the tutees' Attendance Sheet.

Selection of Tutees/Participants:

Following the advice of the project's reading consultant, the researcher administered the Gates Reading Survey for Level of Comprehension Test for Grades 6-10 among the poor readers (mostly coming from the lower sections) at AHS, one afternoon in September. One hundred thirty-three (133) first year high school students took the test and all were found to have reading grades below first year high school. Except for the non-readers who would require the intervention of reading experts, the lowest-scoring 70 students were selected to participate in the program.

The students selected to participate in the peer literacy program consisted of 29 girls and 41 boys, mostly in the 13-14 years old age range. When asked what reading materials were available at home, most said they had some books, magazines, newspapers, and vernacular comics but that they would rather watch TV. They hardly read for pleasure (except comics) and if they read at all, it would usually be to read the assigned books/articles, that is if they were lucky enough to be able to actually obtain copies from the school. (Public schools in the Philippines seem to be suffering from a perennial shortage of textbooks, classrooms, and teachers.) When asked to read aloud a short passage in English, many of

Table 1. *Reading Profile of the Participants*

Reading Grade	Number of Participants	%
Grade 5	8	11%
Grade 4	13	19%
Grade 3	29	41%
Grade 2	20	29%
	70	100%

them did not observe correct phrasing and pausing, indicating that they were not reading by thought units but were reading words, with difficulty. Though they were vague about family income, based on the occupation (sometimes this was irregular) of their parent(s), the researcher concluded that many of them belonged to the lower middle class and the poor.

These 70 tutees were distributed among the tutor pairs (each pair had 10-12 students) and the school principal was informed about this to ensure the students' cooperation.

Design and Implementation of the Cross-Age Literacy Program:

Firstly, the researcher had to consider the schedules of DLSU and the "adopted" school, Arellano High School (AHS), a public school in Manila catering mostly to the middle and lower socio-economic classes. After this, the researcher interviewed the principal of AHS to determine the most appropriate content of the program. The DLSU Department of English and Applied Linguistics then designed a reading and review program in cooperation with the university's Center for Organized Student Concerns and Action (COSCA) which is tasked with the implementation of NSTP at DLSU.

The principal of Arellano High School (AHS) served as the main coordinator and consultant for the school. The principal assigned one teacher-cooperator and one general assistant. The teacher-cooperator monitored the attendance and activities of tutors and students and made sure that order prevailed in the tutorial sessions. She also orally reported to the researcher on the tutors' attendance and handling of the session. The general assistant, on the other hand, ensured the availability of basic classroom supplies, except the textbooks which the participants were expected to bring and additional instructional materials which the tutors brought.

The peer/cross-age review and reading program was conducted every Saturday, from 9:00 to 12:00 at Arellano High School. The reading program came in two phases, following the two-term schedule of NSTP: Phase 1 from October 26 to November 23, 2002, and then Phase 2 from January 18 – March 1, 2003, for a total of 11 sessions. The incentive for the students to attend the tutorial sessions was the chance to get a passing or better grade in the English subject.

The tutors worked in pairs predetermined by the researcher. The peer tutors were told to take up in every session one or two selections (depending on the ability of the group assigned to them) from the textbook in English One

prescribed by the Department of Education. The first part of each session was a review of lessons in the previous grading period; the second half was the teaching of different reading strategies using current text(s), to help students become independent readers. Grammar was not supposed to be covered by the tutors as it was not part of their training; however, in Phase 2, a part of the session was spent on grammar because of the observed language problems of the tutees. The tutors prepared a lesson log prior to the session, one copy of which was given to the researcher. Attendance was checked every session. All data and output generated by the project was collected by the tutors for record purposes. The very first tutorial meeting served as an orientation and getting-to-know you session for everyone.

Data Gathering and Analysis

The data to determine the effectiveness of the program came from the results of the reading pretest and posttest, with supplementary data from interviews with some tutees and the teacher-cooperator. Reading Grade (RG) was used as the basis for determining improvement in reading performance: any increase in RG was regarded as an improvement in reading comprehension. To test for the significance in change in RG, the Wilcoxon Signed-Ranks Test was used by the project's statistician.

Data to determine the impact of the cross-age tutoring program on the tutors came mainly from the tutors' journal reports and one focus group discussion held after Phase I of the program. Joint journals were required of the tutors so that when one of the pair was busy tutoring, the other one would be taking down notes on what transpired during the lesson. The journals were episodic and events and reactions from the students and from the tutors themselves were recorded after each session. The emotional reactions of the tutors were sometimes expressed in codeswitched form, that is English and Tagalog, and sometimes in contemporary youth slang. The common themes of these journals and lessons learned by tutors were noted.

The focus group discussion with the tutors was held over lunch to celebrate the end of Phase 1 of the program. It was a free-wheeling discussion of their feedback and recommendations. The interview with the teacher-cooperator took place every time the researcher visited the site. It was more of a conversation regarding her observations on the attendance of the tutors and the tutees and their behavior. Since the teacher-cooperator was pursuing graduate studies at the time, she was not always present during the tutoring

sessions. The interview with selected students took place months after the tutorial had finished. Some of the students who were pre-identified for interview had dropped out of school. None of the discussions/conversations/interviews was recorded, the researcher taking hand written notes on what was discussed during the sessions.

Results and Discussion

Is the tutor training program adequate?

Based on the tutors’ journals and the focused group discussion, the tutor training did not adequately prepare the tutors in terms of classroom management and motivating the students. Because it focused on reading strategies, important aspects of tutor training were missed. One such omission was learning about learning styles which Boise State University considers important. According to Thomas (1993), teaching “how to build and maintain collaborative relationships” is very important, but this, too, was overlooked. Two other significant omissions of the tutor training were the metacognitive aspect (“learning about learning”) of collaborative learning (Gartner and Riessman, 1993) and training in listening skills (Pyatt, 2002). From the tutors’ feedback, the researcher realized that another oversight of the training program was the failure to give prior background information about the tutees.

Is the cross-age, cross-school reading program designed for the target students effective?

The study took as an indicator of effectiveness an improvement in Reading Grade and not only an improvement in reading scores among the 70 students who participated in the program. The pretest and posttest results in terms of raw scores and equivalent Reading Grades are summarized in Table 2 (to protect the identity of the participants, numbers are assigned to them). Unfortunately, out of the original 70 participants, only 21 took the posttest and 13 of them showed an increase in Reading Grade, with the highest increase by 1.2.

To test the hypothesis that the Reading Program was effective in improving the reading skills of the students, the Wilcoxon Signed Ranks Test was employed. This statistical test is designed to evaluate the differences between pretest and posttest scores as well as the Reading Grades of students. Results shown in Table 3 indicate that there were no statistical differences in both pretest and posttest scores ($T=80.50$, $p=$

Table 2. *Participants’ Pretest & Posttest Raw Scores and Reading Grades (RG)*

Participant	Pretest Score	Reading Grade	Posttest Score	Reading Grade
1.	8	2.9	13	3.8
2.	19	5	16	4.3
3.	13	3.8	9	3.1
4.	13	3.8	5	2.6
5.	17	4.4	20	5.2
6.	13	3.8	8	2.9
7.	14	4	12	3.6
8.	9	3.1	12	3.6
9.	12	3.6	7	2.8
10.	12	3.6	18	4.8
11.	9	3.1	13	3.8
12.	9	3.1	14	4
13.	19	5	16	4.3
14.	13	3.8	16	4.3
15.	11	3.6	14	4
16.	13	3.8	18	4.8
17.	9	3.1	4	2.5
18.	9	3.1	16	4.3
19.	7	2.8	14	4.0
20.	17	4.4	21	5.3
21	6	2.7	13	3.8

Table 3. *Descriptive statistics of the test scores and Reading Grades of students*

Descriptive Statistics	Pretest Score	Pretest Reading Grade	Posttest Score	Posttest Reading Grade
Mean	12.00	3.64	13.29	3.90
Minimum	6.00	2.70	4.00	2.50
Maximum	19.00	5.00	21.00	5.30
Standard	3.74	0.66	4.61	0.80

0.22) and Reading Grades ($T=74$, $p=0.50$) of students. Thus, it can be said that the Reading Program, as designed, did not substantially improve the reading skills of the students.

The most probable explanation for the program’s lack of impact is the tutees’ poor attendance. On the average, the 21 students who completed the program incurred 5 absences. Out of these 21, thirteen (13) had an improvement in Reading Grade despite their many absences, suggesting that their improvement could not be attributable to the program.

To understand why attendance was a problem, it must be remembered that most of the tutees came from socially disadvantaged socio-economic backgrounds, which meant that many of them had to help out at home during weekends, to enable their parents to work, or to earn a living themselves and contribute to the family income. Actually, two tutees who were interviewed said they had a job on weekends (one worked as a junior mechanic while the other worked as a janitor) to explain their many absences.

What is the impact of the peer literacy program on the tutors?

In the present study, it would seem that the cross-age, cross-school reading program benefited more the tutors than the tutees. A study of the joint journals of the tutors reveals that the experience taught them lessons which the classroom did/could not teach.

Lessons in Pedagogy and Classroom Management.

The first realization for them was that they were not really prepared for the unexpected, like bored or misbehaving pupils. However, they learned, by trial-and-error, what methods were most effective for these youngsters. All of them discovered that interactive activities like games, board work, contests and similar activities that require the tutees to leave their seats, worked wonders.

A second realization was that their tutees did not know English all that well, which made reading in English very difficult. It was almost instinctive for all the tutors to fall back on the first language (Tagalog) to help the tutees understand their questions and the reading selections. They struggled to learn how to simplify their lessons, something they did not learn in the classroom.

Thirdly, the tutors learned to be very creative, not depending on the textbook which most of the tutees did not have anyway. They invented games, held contests, made tests, used diary journals and graphic organizers, to urge their tutees to express themselves and to understand the text. The tutors also were very quick to find alternative strategies when they sensed that an approach was not working. Although they did not have training in assessment, they had a gut feeling regarding the weaknesses of the tutees in terms of their reading abilities.

The tutors also learned how to make appropriate adjustments when problems occurred. For instance, when one of the tutors was late, she called her partner to take her place. At another time, when only two students showed up in one

class and only three in another, they decided it would be best to merge the two classes.

Socio-Psychological Lessons. The peer literacy program had a strong social impact on the tutors. First, because they come from well-to-do families, the tutors learned the joy of sharing food and discovered how the “other half” valued things. For example, they realized that having a personal copy of the book was not that high on the priority of the tutees, and so the tutors decided that oral reading should be done by those who had copies. Realizing that the poor might be more sensitive to comments and corrections, the tutors took care how they worded their suggestions and corrections. The tutors also learned to be appreciative of the “best efforts” of the students though they hardly came up to expectations. On the whole, they learned to be encouraging, though they felt the need to “balance being encouraging and being pushy,” as one tutor put it. The words that one tutor wrote in her log journal summarize the impact of the peer tutorials: “It’s worth the experience, it’s worth the cramming, it’s worth the effort, time and money. Because I’ve learned lessons everyday and find a damn good experience.” In short, the tutors discovered the psychic rewards of teaching. One of them wrote about the last session: “It’s quite funny and touching the way some of them stayed behind after the exams. They wanted to say goodbye. Joseph even sang a goodbye song, ... and invited us to their Foundation Day [celebration]. They told us to visit them once in a while. It is this part of teaching that makes it all worthwhile.”

Realizations as to Content. At the end of the tutorial program, the tutors have matured a lot. They gave suggestions to improve the peer literacy program, such as: 1) to make attendance in the NSTP tutorial part of the grade in English, to force the students to attend; 2) for the NSTP coordinators to give the tutors some background as to the reading problems of the tutees; and 3) the need for the inclusion of English grammar in the reading program.

Is the NSTP an effective vehicle for a cross-age, cross-school tutoring program?

To this question, the answer is a qualified YES. Yes, the NSTP provides a ready pool of volunteers - in fact, at De La Salle University alone, hundreds can be tapped to serve in any of the NSTP components - but its timing can be improved. Requiring NSTP of college freshmen is premature and fails to maximize the potential benefits from the program. Especially

in the College of Education, the NSTP should be delayed until after the students have taken their foundation courses in education (that is, postponing NSTP to the 2nd or even the 3rd year). These courses would help the NSTP tutors address some of the problems they noted in their journal reports, namely: motivating students, keeping students well-behaved, managing the class for the maximum participation of all, with no one student dominating the activities.

Furthermore, NSTP is scheduled on Saturdays (the students have their regular subjects from Monday through Friday), and this has resulted in the problem of the target beneficiaries of the literacy program finding it difficult to go back to school on Saturdays regularly. In fact, based on the attendance report of the tutors, there were twenty-two (22) students or 32% who had incurred 10 absences during the tutorial program.

The solution to this dilemma is to extend the Monday through Friday classes of the tutors by 30 minutes to include the tutorial session (at about 5:00pm., the literacy program can begin), so that the tutees do not have to come back on Saturdays. The problem is, this can be done only if a college/university has a high school or elementary department where the NSTP students can conduct the tutorials without having to go to another school. If this is not the case, there seems to be no way out of the problem of poor attendance except to choose a highly motivated group of students who would be willing to undergo the sacrifice of coming in on Saturdays. In hind sight, the group chosen in this study was not sufficiently motivated to attend – not by grades, food, or fun. Despite the researcher's conference with the parents to convince them that the project would benefit their children, the attendance did not improve. Perhaps the tutees, and maybe even their parents, did not see the immediate benefit from reading lessons, at least not the way an extra income is immediately useful.

Thus, to give a peer/cross-age literacy program a chance to work, it would be good to have a highly motivated group who would welcome such a program. One such group could be the third year high school students who intend to take the college entrance examination the following year. The tutors could help them read/review materials and teach them reading strategies to improve comprehension and retention of content materials.

Relevant to this is the next important lesson learned by the researcher from this study, and that is, that good intentions are not enough to make a program work, especially if the program follows a top-down approach. As designed, the mechanism of implementation of any of the NSTP components -

military training, community service, and literacy program – has been determined by the school prior to the students' enrollment of NSTP. Thus, the students try their best to fit into the program designed by someone else and the would-be beneficiaries must do the same. To feel some ownership for the program for them to become committed to it, the tutees' voices, even among the highly motivated, should also be heard. This is in concurrence with Whitman's (1988) suggestion. To this, the researcher wishes to add the tutors as part of the group dialoguing and negotiating until they come up with a viable program.

Conclusions, Implications and Recommendations

The research shows that there was a reading problem with many students in the lower sections of AHS (Arellano High School): many had Reading Grades below high school level. Unfortunately, the peer/cross-age literacy program designed to try to address the reading problem of AHS was not successful, for several reasons. As mentioned earlier, the very high drop out rate in the program was due to the socio-economic situation of the tutees. It is suggested, therefore, that future cross-age tutoring programs seriously consider this factor and adjust the content and delivery according to what the tutees can afford or are willing to do. However, this being the case, it probably can not be done via NSTP. Future similar programs should also ensure the more active participation of the tutees, not only in doing the tasks and activities but also in evaluating their relevance, but this is really going to be a challenge. During the tutoring program, the only measure of relevance for them and maybe for the tutors as well was if it was FUN so that the tutees would come back for more.

Implications for Teacher Education

In this study, the benefits from the peer literacy program were lopsided in favor of the tutors. In many ways, they got more out of the program than the intended beneficiaries. This is a clear indication that it might be a good idea to offer a peer/cross-age tutoring course in a teacher education program. Unfortunately, much of teacher education is focused on content and adult-to-child pedagogy but gives little formal training, if at all, in peer teaching. Sadly, the pre-service training of teachers in the Philippines is still premised on the traditional perspective on teaching as being ideally done by someone much, much older than the students, which is unrealistic because the family and the class are actually the

first classrooms of future teachers. To be in-step with the times, students should also be taught the dynamics of reciprocal teaching/learning. (In fact, the Center for Effective Collaboration and Practice even goes one step further and advocates classwide peer tutoring.) On-campus tutorials can be the laboratory for this. In peer coaching, as suggested by Lippitt (1976), training should be twofold: in the content that is to be taught and in socialization skills in relating to slightly younger people, or peers. Teachers assume that a person would know how to deal with someone his/her age, but this is not often the case, and in fact might explain why campus tutorials by students sometimes fail. However, if teacher education programs include lessons in peer teaching/coaching and require campus tutorials as a form of practicum, then even before they go out of school to do their Practice Teaching, the students may already experience what it means to be a teacher and begin to understand the mission that is teaching.

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