This paper reports on a study of developmental thinking and qualities of reflection exhibited by two groups of music student teachers at two universities using different cooperating teacher training programs. The study examined the weekly journals of 19 music student teachers at Institution A (with trained cooperating teachers) and 26 students at Institution B (with untrained cooperating teachers). Students from Institution A used open-ended narratives to report on their weekly activities and to reflect on their teaching, while Institution B students reported their activities on more standard forms and then wrote a paper at the end of the semester in which they reflected on their student teaching experiences. Analysis suggested that the differing weekly reporting instruments rather than differences in the training of cooperating teachers contributed most to the differences in developmental growth between the two groups. The forms used at Institution A were open-ended and apparently more conducive to a wide-ranging narrative about many aspects of the student teaching experience whereas the forms used at Institution B asked for responses to specific areas and appeared to elicit briefer and less reflective responses. However, the final papers written by the Institution B students exhibited significant amounts of reflection. The findings support the value of providing students with an opportunity to "think on paper" about the activities, experiences, failures and successes of teaching.

(Contains seven references.) (ND)
DEVELOPMENTAL THINKING IN THE STUDENT TEACHING EXPERIENCE

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The first purpose of this study was to examine the level of developmental thinking exhibited in weekly journals of music student teachers at two universities. The student teachers of one institution were working with cooperating teachers who had been trained in developmental clinical supervision. Cooperating teachers at the second institution had received only written instructions and a handbook to inform them of their duties and responsibilities with the student teachers. Thus, the second purpose was to discover if there were differences in the kinds and qualities of reflections of the student teachers in these two settings.

The study examined the weekly reports of 19 music student teachers at Institution A (with trained cooperating teachers) and 26 students at Institution B (with untrained cooperating teachers). The cooperating teacher training program at Institution A consists of a two-day workshop conducted by the faculty. The materials used were developed through research by Drafall (1991) involving the role of the cooperating teacher, the conference approach used by that teacher, and its effect on the reflective thought development of the student teacher.

The student teachers from both institutions were in the field during the spring and fall semesters of 1995. Student teachers at
Institution A used open-ended narratives to report weekly on their activities and to reflect on their teaching. Student teachers at Institution B reported their weekly activities on more structured forms that included questions regarding their significant teaching activities, self-observed strengths and weaknesses, and self-directed instructional goals for the coming week. Students at Institution B also wrote an 8-10 page paper at the conclusion of the semester in which they were asked to reflect on their growth and experiences over the entire student teaching experience.

Entries from the weekly reports and end-of-semester papers were analyzed to determine the issues on which the student teachers had reflected and to assess the quality of their reflections. Of particular interest were reflections that indicated growth from lower to more advanced levels of teacher concern (Fuller, 1969). Reflections at lower levels might be expressed in reflections on the "self" as a person and teacher. Concerns at the moderate level might show a growing concern for the impact of the teaching techniques and materials used, and reflections from student teachers at the highest level of development might be centered on student outcomes and the results of the student teacher's instruction.

Weekly reports from both institutions were separated into three sections: beginning (weeks 1-3), mid-point (weeks 6-9), and end (weeks 12-16) of the semesters. The student teachers' reflections were then analyzed for quantity and quality and categorized into those that showed growth throughout the student
teaching experience, those in which the reflections remained consistent, indicating little or no growth, and those that appeared to regress in the quantity and quality of reflection. Reports from the first three weeks were also grouped into those that were, or were not reflective.

The following excerpts from weekly reports of a student teacher at Institution B illustrate his reflective thought development throughout the experience. The "short answer" style is typical of the reports using Institution B's questionnaire format. These quotes from the opening weeks of student teaching indicate that he is in the lowest level of teacher development. His reflections show concern with himself as a teacher, but not his students.

(Listed as strengths) "Pace was pretty quick in rehearsal. Interpretation of jazz rhythms."
(Weaknesses) "Lack of clarity of instructions. Weak cuing and phrasing in conducting patterns. Forgot a couple of trumpet fingerings. My teaching lacked energy; I was tired on the podium."

By week six he began to see how his teaching affected the students although he was unsure of what changes were needed to improve.

"Lacked good ideas on how to make rehearsals more interesting. Instructions weren't clear enough." (His solution) "More detailed lesson plans." "Students appeared disinterested in music possibly due to my lack of interest. Students tended to tune out more frequently. I need to be more energetic on the podium."

While his terse comments still exhibited a tendency toward self-concerns, by week fourteen he had become more aware of his impact as a teacher and was able to see his effect on the students.
"Good control of off-task behavior. Beginners made all kinds of progress as a group. Did all the rehearsals this week. This is a real 'dead' time just prior to spring break. My birthday was Friday and the students brought presents and sang...kind of neat."

Excerpts from the opening weeks of a student teacher from Institution A are marked by a more flowing narrative, encouraged by the open-ended nature of the reporting instrument. The remarks also show her concern for "self" but provide more insight into the school setting and the cooperating teacher.

"Mrs. J. is a wonderful person and teacher. I observed a lot this week which enabled me to learn names, behavior problems, and Mrs. J's teaching style. Unfortunately the seventh and eighth grade choir is not too well behaved. It will be interesting to see how they treat me."

By week two she was already reflecting on her teaching skills and their effect on the students.

"My classroom management skills have improved tremendously within the last few days. I will not put up with the seventh and eighth graders' constant talking. Anyway, to improve my skills, I learned the names of the major behavior problems and shout their names out whenever they interrupt rehearsal. I am also working on keeping a really quick pace so I don't give the students a chance to talk."

During the middle of the semester (week 7) the student teacher was clearly reflecting on the relationship of her instruction to student response and was beginning to make observations on her future as a music teacher.

"This past week was great! The senior high choir began to make music and enjoy choir in a more productive way. My classroom management skills are getting progressively better... I enjoy teaching and the life of a teacher much more than I did in the beginning of this experience. I am really fortunate that I am getting a complete view of how my future as a music teacher will go."

By the final weeks of the semester she expressed considerable
confidence in her teaching and its effect. Her comments also demonstrate the ideal type of growth desired as she moved from reflections on herself and her teaching to more clearly defined concerns for the students and what they were learning.

"I could not enjoy student teaching more. A new marking period began and I love my new classes. In the beginning of the semester Mrs. J. turned 'her' classes over to me. This time I had the students from the beginning. I feel like I have so much more freedom. My teaching is so much better. I feel extremely confident with my general music classes. Everything is really coming together, pacing and management included."

The following student from Institution B began the semester with typical concerns and reflections but showed little if any growth across the semester and seemed to regress somewhat in self-confidence. Reflections from weeks 1-3 included the following comments about himself and the students:

(Week one) "I was a little nervous since this was my first experience in front of the group. I have always had trouble projecting my voice - some students did complain about hearing. The rehearsal moved a little slow. The students are used to a fast-paced, somewhat crazy rehearsal with Mr. H." (Week three) "I felt that I had a good amount of energy during the two periods. I tried to involve the students by asking them a few questions."

During weeks six and seven he was still working on management problems with little success.

"I strived (sic) to be more demanding of the students' attention. I would not move forward until the students were quiet...I need to be more demanding and take control."

Finally, in week eight he reported the following:

"After the rehearsals had ended, I felt that the students had responded to me the best they had so far. This was due to my firm instructions to the class. I finally did not let the students take control of the rehearsal."
By the final weeks of the semester the student teacher clearly knew that he was having little effect on the students and continued to be frustrated with his lack of class management skills.

"I felt that I was rather positive - yet firm. I got my points across. Many times it is difficult to be positive with the students who do not seem to put forth any effort, or don't seem to care. I feel that as a teacher it is my responsibility to help or boost all students... The seventh graders have been getting quite talkative and rowdy lately. I tend to relate this to my lack of preparation. I have tried just doing larger sections of the music... When I do focus on detailed stuff, sections that aren't being worked with tend to get out of hand."

An interesting phenomenon was observed in the reflections of some of the student teachers at Institution B who had positive student teaching experiences and who were good prospective teachers. Their weekly reports were short, uninformative, and non-reflective. In contrast, their final papers were very reflective on their teaching and its effects on their students, and showed considerable insight regarding the whole experience.

As an example, the following student's goals for more than half of the semester consisted of one of two words: "piano" or "discipline." Many of her other reactions were brief and in some cases fairly shallow in their level of reflection. She sensed that she needed to improve, but was unsure of how or what to change.

"When something is not working I change to try and better accommodate the needs of my students... I try to make what I teach relevant to my students... I try really hard to continuously change and grow as a teacher... I'm FRUSTRATED! I don't feel like I taught anything this week I'm struggling with discipline and I don't know exactly what my problem is."

However, her reflective paper at the end of the semester was relatively sophisticated in its perceptiveness if not in writing
quality.

"It would be impossible to really put into words the experience I have had in the last sixteen weeks. Student teaching has been the most scary, difficult, educational, exciting, and eye-opening experience I have ever lived through. I began...insecure about my ability to teach music and even more unsure of my desire to teach music and I am leaving not only excited about my chosen field but I have my first job. As I reflect back on the past semester I think there are five main areas in which I have learned and grown the most, these are: the development of children, different learning and teaching styles, discipline issues, lesson planning and the importance of support of faculty and administration."

Our conjecture is that the reporting format requesting specific responses to given questions was simply too prescriptive to elicit truly reflective comments. It may also have been the case that these student teachers perceived themselves as too busy with planning, teaching, and the day-to-day business of schools to regard the weekly reports as much more than a nuisance.

Informal reports to faculty members at Institution A stated that the student teachers enjoyed writing their open-ended, journal style reports. From these comments one may surmise that the ease of reflecting with the less restrictive instruments lead to reflections that were more frequent as well as better in quality.

The purposes of this study were to examine the level of developmental thinking exhibited in weekly journals of music student teachers at two universities using different cooperating teacher training programs, and to discover if there were differences in the kinds and qualities of reflections of the student teachers in these two settings. While we do not purport this to be a quantitative investigation, the following comparisons
may be helpful in drawing conclusions regarding the study.

As previously stated, the reports from the beginning of the semester (weeks 1-3) were judged and grouped into those that were or were not reflective. The basis of judgement was the quality of reflective statements concerning the student teacher's role, the school setting, the pupils, and/or the cooperating teacher. As can be seen in Table 1, a substantially larger percentage of reports from Institution A (trained cooperating teachers) were judged to be reflective than those from the students at Institution B (untrained cooperating teachers).

Table 1
Level of Reflection at Beginning of Semester

<table>
<thead>
<tr>
<th></th>
<th>Institution A (n=19)</th>
<th>Institution B (n=26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflective</td>
<td>84.21% (16)</td>
<td>65.38% (17)</td>
</tr>
<tr>
<td>Not reflective</td>
<td>15.79% (3)</td>
<td>34.61% (9)</td>
</tr>
</tbody>
</table>

Table 2 shows the level of developmental growth across the entire semester. In this case the reports were categorized into those showing growth, those remaining static, and those that appeared to regress. The judgement of developmental growth was based on the quality of the reflective statements throughout the semester concerning the student teacher's role, the school setting, the pupils, and/or the cooperating teacher.
Table 2

Levels of Developmental Growth Across the Entire Semester

<table>
<thead>
<tr>
<th></th>
<th>Institution A (n=19)</th>
<th>Institution B (n=26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth</td>
<td>47.36% (9)</td>
<td>50.00% (13)</td>
</tr>
<tr>
<td>Static</td>
<td>47.36% (9)</td>
<td>23.07% (6)</td>
</tr>
<tr>
<td>Regression</td>
<td>5.26% (1)</td>
<td>26.92% (7)</td>
</tr>
</tbody>
</table>

Based on the information gathered in this study, the differences noted cannot be attributed to the fact that Institution A's cooperating teachers were trained in developmental clinical supervision and those at Institution B were not. It is our opinion that much of the difference in the quality of the reflections was due to the differing weekly reporting instruments. The forms used at Institution A were open-ended and apparently more conducive to a wide-ranging narrative about what was taking place in many aspects of the student teaching experience. The forms used at Institution B asked for responses to specific areas of significant teaching and school related experiences, self-observed strengths and weaknesses, and self-directed goal setting. These forms appear to elicit not only briefer, but in several cases, less reflective responses. The quality of reflection and developmental growth found in the final papers written by the student teachers at Institution B also support the notion that the differences in reflections noted in the weekly reports may be attributable to the
reporting instruments.

Our inferences about the student teachers whose weekly reports displayed a regression in their ability to reflect are less certain. In one instance, the student simply stopped sending in the reports. In other instances problems with cooperating teachers or a true lack of progress by the student teacher was the likely cause.

What conclusions can be drawn from the data? It is unlikely that weekly reports and reflective papers can be used as the sole basis for analyzing an experience as complex as student teaching. Some aspects of the growth and development of the student teachers, however, are clearly portrayed in their reflections. Such writing does provide students with an opportunity to "think on paper" about the activities, experiences, failures and successes of teaching. Combined with frequent observation, and continuous mentoring by the cooperating teacher and university supervisor, reflective writing by the student teacher can provide a rich portrait of the developmental growth of a budding professional educator. This is best stated in the words of one of the student teachers.

"Student teaching feeds the appetite and makes one anxious to be hired. But teaching is a difficult profession for I have seen firsthand how much responsibility teachers are expected to handle. Student teaching proves that the university only provides you with a basic foundation, but does not prepare you for dealing with students and problems that will arise. The best teachers are those that are in constant search of bettering themselves and their methods. Teaching is difficult, but the reward comes through seeing a child learn and I look forward to the challenge that lies ahead."


