

12 February 1975

TO: Dr. Paul Saltman
Vice Chancellor/Academic Affairs
FROM: Pauline Oliveros, Associate Professor of Music

SUBJECT: Innovative Teaching Grant

Attached is a proposal for a project for the composition, investigation, application and testing of some innovative teaching techniques. Appended are some exercises composed and evaluated by my Music 2 (Basic Musicianship) students from models and theory of my own. The evaluations by the students were written under time pressure (20 minutes) as a mid-term exam. Also appended is my paper "On Sonic Meditation" which gives my definition of attention and awareness as it is used in my proposal.

The grant should provide funds for release time for Dr. R. Lane of the Muir Counseling Service, computer time for evaluation of data, access to equipment for measuring and recording reaction times, recording tape, xeroxing and for part time secretarial service.

PO:rel

PAULINE: I'd be delighted if you can produce evidence for better, quicker, deeper musicianship using these methods. I confess I have my fingers crossed — people are so different + teaching/learning is so individual that I have no great faith in any single method. However, I'm game! I'd be interested in the "before" + "after" testing procedure. Lots luck.

R.E.

12 February 1975

TO: Dr. Paul Saltman
Vice Chancellor/Academic Affairs
FROM: Pauline Oliveros, Associate Professor of Music

SUBJECT: Modes of attention and awareness in the teaching of
Basic Musicianship

The skill of a musician depends on the synthesis of aural, visual, and somatic attention and awareness. He or she must be able to hear mentally as well as physically, see and interpret musical symbols and cues, respond correctly as a singer, conductor or instrumentalist. Attention means focus and clarity of detail, while awareness is concerned with the overall field and is diffuse. (See On Sonic Meditations. Appendix). Attention and awareness may be turned outward toward the environment or inward to the imagination and memory. Aural and somatic attention can be turned outward while visual attention is turned inward or any combination of these modes of attention and awareness might be in effect. An individual whose attention and awareness is turned entirely inward might be considered to be out of touch with reality. An individual whose attention and awareness is turned entirely outward might be considered to be out of touch with himself. What is necessary for growth and development for the whole person is the ability to focus attention and find awareness in each area, inward or outward, flexibly, or at will in any combination of the modes. The separation of attention and awareness is a useful theoretical concept.

I have composed some exercises based on the above theory for my Music 2 (Basic Musicianship) class. For example:

The group forms a circle (about 20). Three people face each other in the center of the circle and a fourth person is the critic-conductor. The critic-conductor begins to clap a tempo. The large group takes it up. In the center, person A invents and claps a rhythm, with respect to the tempo person B must repeat it and add his or her own rhythm, person C must repeat A's and B's and then add his or her own rhythm. Then the center group must clap together (A + B + C), and then the whole group claps the whole rhythm. The critic-conductor must stop the exercise whenever he or she detects an error and explain exactly what was wrong. Some possible errors: Person A, B, or C does not repeat exactly; Person A, B or C lags the tempo; group is too loud or goes out of tempo; critic-conductor does not perceive error; etc. The group determines whether the critic is accurate. Then a new group comes into the center. No errors are allowed. As the group improves, more people are added to the center group.

This exercise is extremely difficult due to the poor attention habits of many students but it is extremely effective at training attention and awareness, intuitive responses and memory. Psychologically, both group and individual competition is present but is balanced by collaboration. (If the individual fails, the whole group fails). Visual attention in this exercise is free to scan for any visual cues which aid and reinforce the aural and somatic tasks. For instance, watching a group member's hands in order to keep tempo, or help pick up the rhythm. Visual awareness is intended to take in the group as a whole, to reinforce the feeling of ensemble. Aural attention must be focused on the rhythm introduced by person A without losing awareness of the overall tempo (the whole group). The critic and the group must be able to tell when an error is made. Somatic attention is focused in the movement of the hands and an awareness or sensing of the group is necessary to maintain tempo. The rhythmic invention of the center group is spontaneous so that intuition is also necessary along with the training of memory.

This exercise and others that I have composed seem to be very effective

in the context of Music 2. Not only do they sharpen the necessary skills for good musicianship but they seem also to help students to communicate more directly and peacefully with each other.

I believe that the theory of these exercises would apply to other disciplines as well. For example, any discipline which requires spontaneity as well as precision in the use of language, such as mathematics. Mathematical exercises could be devised with a game approach to learning arithmetic or equations. Instead of one individual writing math problems always in isolation, it could be possible for each member, of a group to be responsible for a particular function in an equation, or represent an analog of the problem, and practice orally in a circle formation with the group responses forming "an individual".

I should like to work systematically to compose and test a number of these exercises with the help of Dr. Ron Lane of the Muir Counseling service. I will be teaching Music 2 during the summer session for this purpose and again next fall and winter. I will ask for student evaluation as well as the evaluative testing procedures offered by Dr. Lane.

PO:rel

February 14, 1975

TO: Dr. Paul Saltman
Vice Chancellor/Academic Affairs

FROM: Dr. Ronald Lane
Counseling & Psychological Services

SUBJECT: Dr. Pauline Oliveros' Proposed Project in Innovative Education

This is a brief statement of my enthusiastic support of Pauline Oliveros' innovative approach to education in music, as well as an outline of my proposed role in this project. Pauline and I have developed our research and educational interests along similar lines over the past three years. We both share our interest in the use of meditative techniques for the development of nonlinear or intuitional thinking. My research in this area began with my teaching extension courses in the development of imagery and dreams. Subsequently, I began investigating the effects of different forms of meditation on cognitive functioning, and served as Pauline's research consultant for her PME project in the Music Department. My recent interest in teaching students intuitional skills for the development of creativity, has dovetailed with Pauline's innovative techniques in music education. We both see exciting possibilities for the development, investigation, and evaluation of these techniques and their effects on the learning and performance of music.

In cognitive functioning, our educational system is devoted primarily to the development of verbal/analytic skills which largely represent linear modes of thinking. Considerably less importance is placed on the education of nonlinear or intuitional forms of cognition, expressed, for example, in imagination, creativity and artistic performance. I believe we need to educate students not only in nonlinear thinking, but to learn ways to develop the interaction of this process with the verbal/analytic mode. By teaching students techniques which will enhance the controlled interaction of these two cognitive modes. I believe creative performance can be enhanced in both the scientific and artistic disciplines.

Hard data is needed to determine whether effective education in nonlinear processes is possible, and if so, what techniques are most effective for the cognitive functioning and performance in different disciplines. Because of its heavy reliance on nonlinear cognition, music is an appropriate discipline with which to begin. I have already gathered some initial data in the evaluation of Pauline's PME project two years ago. This was a project which involved an intensive effort to educate music students in nonlinear or intuitional forms of cognition over an academic quarter. The results from this pilot study were very encouraging. The learning and daily practice of various meditational techniques seemed to increase the vividness as well as the

control of the imaginal process, while less controlled forms of mental activity, such as mind wandering, were significantly reduced. This was accompanied by some exciting biorhythmic data in which the amplitude of alpha-wave production from the right and left hemispheres of the brain appeared more balanced for these students at the end of the nine-week project.*

Pauline's methods for developing skills in the deployment and regulation of attention and awareness represents a unique educational approach. To my knowledge, this has never been attempted in a way that lends itself to objective evaluation, particularly in the field of education. My role in the proposed project will focus on the investigation and evaluation of these techniques, particularly from the standpoint of their effects on the learning and performance of music. I also plan to investigate the extent to which increasing the controlled interaction of nonlinear and linear cognition can influence creativity, as well as general cognitive functioning and well-being.

The instruments of measurement for this study will include Singer and Antrober's Imaginal Process Inventory, as well as actual performance tests of aural, visual and somatic awareness, creativity, and experience skills.

The results of this innovative approach to education can have important implications for the education and development of creativity in other artistic, as well as scientific disciplines.

* A more complete description of these results are described in The Use of Dream-work and Imagery Process Training in Higher Education, presented at the International Conference for Humanistic Psychology, Paris, France, Sept. 1973.

Dr. Ronald Lane

RL:gp