

# MULTITRACK RECORDERS: A TECHNOLOGY FOR ASSESSMENT THAT YOU AND YOUR STUDENTS CANNOT AFFORD TO BE WITHOUT

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A musician's performance cannot exceed the musical performance in their own imagination, whether conscious, sub-conscious, or superconscious. Therefore, the mind and ear need continuous training for performance development to occur. Curiously, many schools' computer music labs are not designed for performance development, even though performing ensembles comprise the majority of their curricula. (Just imagine the problems a student composer would have hearing while sitting in a lab next to a Timpanist!) Multitrack recorders solve this dilemma because they are portable and effective in a computer music lab or in a classroom, concert hall, and/or practice room. Unlike keyboard labs, multitrack recorders also allow students to use tools, such as their instruments and voices, with which they are already familiar. For these reasons, the multitrack recorder proves itself to be a tremendously flexible and powerful tool for musicians to develop their fundamentals.

A multitrack recorder is a multitrack recording deck and a mixer joined into one device. This device makes maximum use of the greatest music-making tool in the universe--THE HUMAN EAR! Curricula utilizing multitrack recording uniquely and effectively assist in the development of listening, expression and technical performance skills. In these curricula, students have the opportunity to immediately listen to their recorded exercises and performance(s) for the purpose of self-assessment. However, what musicians "hear" and what they "think they hear" are often different things since they are the critic and creator. Multitrack recordings solve this problem, serving as a mirror with a virtually infinite time frame. Therefore, a student should spend the majority of their time listening to their original performance, allowing for more objective assessment over time. Experience has taught us that thorough recording analysis develops skills faster than otherwise. Over time, multitrack recording will continually narrow the gap between a musician's perception and reality, and develop the musician's performance to a level more consistent with their mental and aural concepts. It is indeed a rare individual who can narrow that gap with only their internal devices. Multitrack recorders allow students to work at their most effective pace and become more responsible for their learning.

Unlike other recorders, multitrack recorders allow students to record ALL of the parts in a piece by themselves and listen to each individual part in isolation or in combination. By having students perform and assess ALL of the parts in a piece, such as a Bach Chorale, they become more musical and more aware of subtle details and relationships. Since students are reading directly from a score, they learn to think and hear beyond their own part. Issues such as intonation, balance, blend, rhythmic alignment, and phrasing between the parts become more important as a result.

Throughout each assignment, students and faculty work independently and in various combinations to create a positive and nurturing atmosphere. During assignments, students are required to detect errors in their performances and develop "rehearsal" plans for improvement. These issues are accomplished using a self-assessment worksheet that dissects the performance into components such as tempo, rhythm, dynamics, articulation, vibrato, intonation, and timbre. The self-assessments also allow the teacher the opportunity to assess student development throughout the assignment, rather than relying exclusively on the final

recording. This “process-based” orientation leads to better understanding and a better “product.”

Once satisfied, students submit their final recordings and self assessments to the instructor. Grades are earned for the taped performance and the accuracy of their self-assessment. These media ultimately reflect EVERYTHING the student understands about music-making. As a result, teachers assess the students’ comprehensive musicianship better than through the traditional written assignments where the responsibility for assessment lies exclusively with the teacher. These final recordings and self-assessments can also be archived for the students, faculty, administration and others to assess progress outside of class.

Students have commented on self-assessments that they learned how to play in an ensemble better, learned how to listen to themselves better, and learned how to deal with frustration better. Others commented that the assignments allowed them to see exactly where they stood as a comprehensive musician. A sophomore music education (flute) student said, “I loved this assignment, and found the process quite helpful. The transcription of the artist on the recording was particularly helpful for analyzing expression. I also learned a lot about ensemble playing, part writing, rhythm and my overall sound. Unfortunately, I also found out that I don’t always sing in tune with my own playing, although I did get better. All of this information will be extremely useful in the future.” Some students have also enjoyed the creative opportunities afforded through the assignments. Other students have commented on the satisfaction they feel from producing recordings by themselves. These moments of achievement are memorable and exhilarating!

To commence multitrack recording, you need a CD, microphone, microphone stand, multitrack recorder and headphones. All of this equipment can be purchased from a variety of companies in a package for under 1,000 dollars--far less than the computers and musical instruments that many schools routinely purchase. Any device with a 1/4” audio output (drum machines or metronomes, tuners, and synthesizers) can also be implemented along with the multitrack recorder to reinforce quality practice habits and promote student inquiry. The technology is relatively easy to use and students can be trained in an hour. With consistent use, students can ultimately concentrate on the musical issues at hand rather than the technology.

If there are any questions about multitrack recording, assignments that employ this technology or self-assessment worksheets, feel free to contact Dr. Charles Rochester Young at the University of Wisconsin-Stevens Point.