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A Metacognitive Frame for an Elementary Music Curriculum

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Abstract

This paper discusses the need for a mechanism by which to include metacognition in all aspects of the educational environment.   Metacognition, or self-referential thinking, can be used to greatly empower students to excel in all types of environments. Specifically it can result in a higher perceived self-efficacy for individuals and groups which lead to more successes in learning and performance. The research suggests that there is untapped potential in the instruction of elementary school children in metacognition. Music, which requires metacognition at a basic level, is an ideal subject for teaching these skills. The author has provided explanations and templates for metacognitive warm-ups, community building, and everyday curricular goals.

A Metacognitive Frame for an Elementary Music Curriculum

Einstein once said "No problem can be solved from the same level of consciousness that created it." Making a knot in a string is easy: you just roll it in your hands for a while. But to unravel the knot, you must understand exactly how the string is tangled. In education, it is one thing to present students with a challenge to their understanding. Teaching them to overcome it is not simply the other side of the coin. For them to truly learn, they must move up a level in understanding.

As living creatures, we must think in order to accomplish anything, but as humans we can also *recognize* that we are thinking, examine our thinking, and make decisions based on that information. (Dunlosky & Thiede's study, as cited in Coutinho, S., Wiemer-

Hastings, K., Skowronski, J.J., & Britt, M.A., 1998) The term "metacognition" was coined

by J. H. Flavell to describe this kind of "thinking about thinking." (Flavell's study, as

cited in Wilson, 1997) By engaging in metacognition, we greatly empower ourselves to

improve our performance.

      If we imagine a student in the process of learning a concept in class, we can

divide that process into four stages, each with a different self-realization.

1) "I can't do it."

2) "Why can't I do it?"

3) "How can I do it?"

4) "I can do it."

      The ultimate goal of learning is usually seen to be stage four, at which the student

has demonstrated some level of achievement. For instance, a student has successfully

added two numbers together to get a third, or has put his finger on a violin's G string to

produce a higher note. Yet being able to do something is not the same as knowing how

to do it. As educators, we desire that the student understand what we have taught them,

so that they can reproduce the results independently. This requires them to "know it."

How can we make "I can do it" more closely resemble "I know it?"

      To protect their students from discouragement in the face of a new challenge,

many teachers start at stage *three*, offering detailed explanations for how to solve a

problem as the first step. In this way, teachers substitute the transfer of knowledge for

thinking. Teachers may regard this as appropriate scaffolding, providing their own competence to shore up the student's lack.

Yet in the long run, avoiding the initial stages will be detrimental to the student because, unless they have a prior motivation to want to learn the skill, the knowledge will seem pointless. Even if they appreciate what they have learned, they will be unable to account for their success, attributing it either to a mysterious inborn talent or to the incredible powers of the teacher.

Stages one and two may appear to be undesirable, but only when someone, usually the instructor, attaches a judgment to them. Really, though, it is far easier to teach someone who realizes they do not know something than to teach someone who thinks they know already. Furthermore, if a student spends the time thinking about what they do not know, they may learn something about themselves that may be of use across a wide spectrum of problems and subjects. "I don't know how changing my fingers affects the sound." This is a use of metacognition, which is a higher level of inquiry than simply answering a question.

Although we have the ability to engage in this important self-examination, we will not necessarily do so. Humans are quite capable of surviving without metacognition and often never develop it. We can learn many things without knowing how we learned them, or even realizing that we have learned them. When we reach points where we confront obstacles that seem beyond our current skills, pieces we can't play, ideas we can't understand, we require metacognition to recognize the gap in our understanding. Many of us lack either the skill or the motivation to use metacognition and so we often turn back from such walls, calling them "unscalable." We fatalistically resign ourselves

to "reality," deciding we simply do not have "what it takes" to achieve at the level at which we had hoped.

Studies suggest that high-performing students frequently engage in metacognition (Berkely, R., 2001; Desoete, Roeyers, and Buysse, 2001; Hallam, 2001; Martini, R., and Shore, B.M., 2008) and that, coversely, students who engage in metacognition may have a better retention of a subject, improved ability to use knowledge (Georghiades, 2004; Wilson, J. and Clarke, D., 2004), and better strategy use (Sperling, Howard, Staley, and DuBois, 2004). Most interesting of all, a student who utilizes metacognition to master a subject may be more successful than another student with a higher aptitude for it. (Georghiades, 2004). With such evidence, we should be asking whether metacognition should be actively taught in school, and in what context.

Music is an excellent subject in which to study metacognition. Music performances require and reward self-reflection and self-knowledge, and so create a natural environment for metacognition in an individual and a group setting. While a violist is playing a sonata for the viola, she is rarely if ever simply playing through the piece from start to finish in a mechanical way. As she plays, she must listen to her own playing and make decisions based on her thoughts about it.

Jazz musicians in a small jazz ensemble must employ an even more complex array of metacognitive skills. In addition to the thoughts an individual might have regarding their ability to play their instrument, each musician must improvise the actual

music they are playing and, at the highest level of the art, must integrate their ideas with the efforts of all the other musicians to create something artistically viable.

Unfortunately, our music curricula often do not reflect much of this aspect of the art, choosing instead to focus on providing the "nuts and bolts" of music: theory, history, and technique. Teachers make these choices based on the realities of teaching today: the need to give children a lot of information in very little time, the desire to maintain control in sometimes chaotic classroom situations, and the requirements from above to maintain Standards.

These are real concerns, and no alteration of current teaching methods can be seen as viable unless it addresses them. The idea of adding metacognition to the list of things which our students must learn can seem daunting to teachers who are already struggling to include the most basic musical ideas in their classrooms in the face of public misunderstanding, administrative interference, and government apathy.

Yet maintaining the status-quo is a self-deluding option. If one wishes to truly examine the realities of the classroom, we see that the challenges it presents can make the stated goal of imparting a critical mass of information nearly impossible.

1) Students often transfer in and out of schools during the year, especially in lower-income neighborhoods, eliminating the possibility of any real continuity of education within a limited 36-week schedule.

2) Students who do remain all year are not guaranteed access to the same music teacher (or method) from year to year, and so will also lose the benefit of careful sequencing in lesson plans over the long term.

3) In elementary school, students may have a *maximum* of 36 classes of 30-45 minutes during a year to receive instruction. This paltry offering is further reduced by field-trips, testing, and teacher and student absences.

4) Many methods of instruction are predicated on the idea that the students fall within a relatively close range of congnitive and motor ability, and that their learning can be structured along a single sequence. Given the above three conditions, this is unlikely. Inclusion of special-needs students within the classroom further widens the range of possibilities in the learner. The reality is that each class contains a wide spectrum of learners with differing strengths and weaknesses, and each class is unique in its learning fingerprint.

The teaching of metacognition can be a vital solution to these problems. In the largest sense, metacognition returns the student to a role as self-teacher. Students engaged in active metacognition in their classrooms are actively seeking and using information themselves, rather than waiting for it to be imparted to them by a distant teaching source. They are learning to become their own teachers on a daily basis. They can take this self-teaching skill with them wherever they go and apply it to any curriculum.

In such an environment, transient students can make the most of their brief time in any situation. More permanent residents will be more engaged and less disruptive. Special needs students will find increased resources with which to overcome their particular challenges. Finally, the diverse members of the group will have more of an

opportunity to bring their individual strengths to the classroom environment, rather than having to fit more or less successfully into a particular mold of learner.

One of the ways metacognition can make a difference to students of all skill levels is by increasing their *perceived self-efficacy*. This term, created by psychologist Albert Bandura, is a label for the idea that the more we are aware of our own ability to succeed at something, the more likely we are to succeed. The research suggests that we will tend to learn better when we go into a situation believing we are capable. (Zimmerman, Bandura, and Martinez-Pons, 1992; Bandura, 1993)   Such an idea might seem obvious or even trivial, but its ramifications are profound.

Bandura and others have undertaken numerous studies to demonstrate the benefits of a higher perceived self-efficacy for students. Those with a higher perceived self-efficacy have been shown to do better in school, interact more successfully with their peers, and even to have a more fulfilling family life at home (Bandura, 1989; Bandura, 1993; Caprara, Pastorelli, Regalia, Scabini, and Bandura, 2005;) Further explorations into perceived self-efficacy have revealed its value in the music world (Nielsen, 2004; McCormick and McPherson, 2003; McPherson and McCormick, 2006).

By maintaining a high degree of self-efficacy, we are not simply "thinking positive". Instead, we are bringing a mature self-image to the learning environment, with all the benefits of that self-knowledge. By simply redefining a skill as something that we can improve upon, rather than an inborn talent which we either have or lack, we actually alter our performance in that skill. (Jourden, Bandura, and Banfield, 1991) The power of

this self-recognition greatly enhances a student's ability to deal with challenges to their learning.

While the term "metacognition" is a recent one, the ideas behind it have been studied for many years. Overcoming challenges is a central idea in Piaget's philosophy in which children progress from one stage of development to the next. In Piaget's view, adolescents must engage in metacognition to successfully manage the formal-operational stage of their development. Vygotsky takes this idea further, stating that a child's ability to set and achieve goals can be measured by the extent of their self-directed speech. Such language comes about when the child becomes able to internalize language-based interactions with other people. (Fox and Riconscente, 2008) Each of these influential theorists stress the importance of metacognition as a vital stage in a child's development.

It would seem to be advantageous to teach metacognitive skills to elementary school children because they are more open to new ideas, because they could use them in the more sophisticated work to come in middle and high-school, and because the primary school agenda is more flexible. Yet the work of Piaget, Vygotsky and other theorists have suggested that metacognition can only come about with a certain mastery of language, and that, in fact, language is the means for metacognitive thought. As elementary school children often have not yet mastered language skills, it is fair to ask whether teaching metacognition at this stage is appropriate or even possible.

There is a bias for language-based learning in our culture, and it is reflected in the research. Many studies on metacognition use self-reporting questionnaires to determine the extent of this type of thinking in their subject. But some researchers question the effectiveness of such measures, especially for younger subjects. In a 2009 article published in *Metacognition Learning,* the authors point to a growing body of evidence that children younger than age 6 do in fact demonstrate inhibition, effortful control, and executive attention with self-regulation. They argue that these attributes have been obscured by the methods used in prior research which rely on self-reporting language from children whose language skills have not matured. (Whitebread, Coltman, Pasternak, Sangster, Grau, Bingham, et al. (2009). These methodological approaches seem to have generated a self-fulfilling prophecy akin to looking for a lost item under a lamp just because that is where the light is best.

Perhaps it is safest to say that self-knowledge develops from our youngest days, and that, rather than language being the sought-after key for metacognitive thinking, it is rather a powerful tool which we seize upon in adolescence to greatly further our progress. In this way, we can keep the acquisition and use of language in the privileged place where it belongs.

Yet it may be that any organized system which can be used for communication can serve to make one self-aware, with movement being the first, and artistic and musical expression following soon after. This would go a long way towards explaining the presence of prodigies in the field of music, art and sport at a far younger age than those in literature. Such children could not advance to the status of mature artists without substantial learning taking place, and yet very often we cannot say that much language-

based teaching has occurred. These children have learned by being aware of their abilities and shortcomings, and by setting goals based on their powerful sense of perceived self-efficacy, all far in advance of their mature language skills.

This leaves us plenty of room to explore self-referential thought in children. All that remains is for us to choose mediums that will be more effective to their means of learning than language, which brings us back to music and the sudden revelation that we as musicians have an opportunity, and perhaps even a responsibility to take the lead in the inclusion of metacognition as an essential element in a child's education.

Once we convince our exhausted, overwhelmed teachers to agree that metacognition would be helpful to them, and that they really ought to be teaching it, the problem remains: How? What methods exist to impart this skill in the classroom? Will it be necessary to sacrifice part of their existing curriculum to make room for metacognition? How can these decisions be justified in the face of the Standards?

The answer is that metacognition need not replace cognition, or even transmission of information. Instead, we can create a framework in which the traditional curriculum can be enriched with metacognitive skills. Students must be given *preparation* for self-recognition, *opportunities* to engage in it, and *guidance* in using it. These experiences will provide a greatly enhanced atmosphere for learning.

I have created a series of tools to accomplish these ends. The first is a series of preparatory activities called *Higher Wiggles*, lasting about a minute per class, which serve to set a tone for a metacognitive environment. The second involves the question of

classroom cooperation, also known as "discipline." The third is a framing structure for a lesson, based on previous sound instructional practices, with the metacognitive aspect highlighted.

Early music specialist John Feierabend used the term "wiggles" to refer to certain games that parents play with their babies, for instance "This Little Piggy." Feierabend contends that these wiggles are vital teaching and learning experiences for children (Feierabend, 1996). Higher Wiggles were created to offer a more sophisticated kind of game to children from ages 5 to 11.

Higher Wiggles are imitation games in which the teacher silently demonstrates a series of movements which the students are to imitate. I have provided thirty-six of these games, one for each week. Each game lasts from thirty to sixty seconds. While any such copy-cat games are wonderful for quieting and focusing the class at the start of instruction, Higher Wiggles have a metacognitive ingredient added.

Each game presents a basic movement for the students to absorb, for instance moving the hand from left to right in front of the face. As the teacher progresses, the class explores variations on this movement. Finally, the teacher presents a gesture which takes the movement to a higher level of complexity, so that a student will no longer be able to simply copy what they see, but must think about how they are moving.

It is not necessary for the children to solve the physical puzzle. Many of them will laugh the moment the challenge becomes too great. The true point of the activity is to make the children aware of the need to move up a level to solve the problem. In this

way, the teacher is physically modeling the metacognitive process that the students will employ in their music making.

While one of the goals of the metacognitive framework is to enable the students to individualize their own learning process, there is also much to be gained from working with the students as a unified group. Perceived self-efficacy can be built not only through personal experiences of mastery, but also by observing other people persevering and succeeding, and through the social persuasion of one's peers. (Bandura, 1989) Peer-interaction offers even more compelling advantages: First, by thinking about a task together, each student's individual cognitive processing load is reduced; and second, while the students are interacting to work together, they must communicate with one another, forcing them to externalize their thought-processes. The result is that each student has an enhanced ability to think and has a reason to concretize and observe their thinking. (Whitebread, et al, 2009)

Through group metacognition, a group can come to recognize a collective self-efficacy which acts in the same way as individual perceived self-efficacy. When a group sees itself as able to work effectively together, they enhance their abilities to reach group goals. (Bandura, 2000) In this way, the group can actually model success for the individual!

One of the most accessible and most practical uses of self-referential thought is in the refinement of a class' sense of community, sometimes called "discipline." If a class is unable to maintain a good community, the fracturing that occurs can make instruction

impossible. Individual students may disrupt the classroom because they are bored, confused, or not motivated. One of the best ways to keep students from splintering is to ensure that there is a group identity, and that the group is engaged in an ongoing learning process that transcends their individual identities. By generating group-metacognition through self-observation of community issues, a teacher can cement the community together while at the same time provide a better environment for the "real" learning.

The metacognitive frame takes an ordinary discipline policy, "Three strikes and you're out," and expands it into an opportunity for community self-regulation. Students are given periodic opportunities to help design classroom agreements, monitor their ability to follow the agreements, and set goals for improvement as a group.

With the teacher determining what is possible based on the students' input, the students and teacher enter into a specific relationship, The students must be aware of their part in this relationship, and aware of the power they have been given (or the power they have lost when they fail to respect the relationship).

The teacher needs the students to help determine what rules are meaningful for a given community. Research has shown that if the rules in a class are not sensible and meaningful to the students, some of them will never accede to them, even in the face of serious consequences. (Bandura, 1991) It is the maintenance of the relationship between students and teacher that give the rules meaning. When the relationship is good, and everyone is aware of the process that keeps it good, then everyone will want to continue that process. This is a wonderful practical application of metacognition from which everyone benefits.

Once the students have been prepared to think about their thinking, and the issue of community has been addressed, all that remains for a teacher to do is to teach the children! The metacognitive frame is designed to support *any* subject that a teacher needs to cover, from rote-learning drills to the acquisition of complex skill sets, by offering certain principles by which these things may most effectively be taught. These principles need not require one type of teaching over another, as there is evidence to suggest that metacognition can be taught equally well direct instruction as with constructivist methods, so long as the teachers are explicitly teaching metacognitive skills in their classrooms (Jager, Jansen, and Reezigt, 2005).

The metacognitive frame differs from other comprehensive methods in its emphasis on the learning process rather than the material that is to be learned. Any student should benefit, no matter what their prior circumstances, aptitude, or length of time in the classroom, because they are improving their very functionality as learners.

To instruct in this way, it is not enough simply to teach students about metacognition. Students must have an opportunity to put their skills to use. (Martini, Shore, 2008) Therefore, the tasks chosen must provide opportunities for metacognitive learning. A large part of this process can be taken care of with a good understanding of how to set goals for achievement in the classroom.

A lesson should refer to both proximal and distal goals. The distal goal is the large, far-away goal to which the students are striving, such as "Perform this piece of music without any errors." This should be sufficiently challenging, and may be kept in

sight over the course of a module, semester, or year. In order for this goal to be helpful to the students, they must be able to evaluate their evolving ability to reach it. Therefore, each class should contain at least one proximal, short-term goal by which the students can move closer to their overall desire, such as "Overcome the challenges in these four measures." (Bandura, 1991)

Explicit, quantifiable goals are the most motivating to students. Wherever possible, everyone should have as specific a sense as possible of the extent to which they should improve. The specific amount of improvement can differ from student to student, and in the light of other aspects of the goal-setting process, self-set goals may be best. If students set their own goals, teachers should encourage them to be as specific as possible. (Bandura and Cervone, 1983)

Goals alone are not enough to motivate students to continue. (Bandura and Cervone, 1983) Students must have feedback of some kind, either external or internal, to give them a sense of how close they have come to attaining both proximal and distal goals. Carefully thought-out comments from the teacher will always be a primary source of a student's sense of how they are doing. But in a metacognitively framed classroom, we also want students to pay attention to themselves so that they can begin to decide when they are meeting their standards.

If possible, students should be able to reward themselves for achievement. The reward may be something as innocuous as "pat yourself on the back if you did a good job." Students will be more effective at monitoring themselves if they have good goals and can reward themselves for good performance. Research suggests that, if a student values the work and uses it to increase their sense of self-merit, they will focus more on

the work than the reward and will more likely reward themselves only for good work. (Bandura, 1976)

Wherever possible, students should be able to judge themselves against self-standards, rather than the performance of one of their peers. Students may be motivated to believe in their own success by seeing someone else succeed, but if they believe they are being compared to another student the social friction between competitors may undermine the real focus on improvement. (Bandura, 1991)

The metacognitive process will ensure that students remain aware of their own capacity for success. The more capable students believe they are, the less discouraged they will be when they fail. Self-efficacious students who fail are motivated to try again. In contrast, students who lack a belief in their abilities will find such failure depressing. Keeping the mood in the classroom positive will contribute greatly to students continuing to believe they are capable in spite of their difficulties. (Bandura, 1991)

The lessons should be structured in a way that increases students' beliefs in their abilities to achieve these goals. The first successes should be smaller, with increasing successes further on. Too large a success early in the process will make later, smaller successes less important. (Bandura, 1991; Zimmerman, Bandura, and Martinez-Pons, 1992)

Overall, the function of education should be on the use of the curriculum to master the self, rather than the other way around. This may be a hard sell in a time when policymakers want benchmarks to present to impatient parents. But a superior learning process tends to yield superior results which can carry across subject areas, and music

educators are in a prime position to start the ball rolling. We have nothing to lose and

everything to gain.

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Appendix One: Metacognitive Community Plan

The point of the metacognitive community plan is to provide an opportunity for students to practice self-direction and self-monitoring.

On the first day, the teacher will explain to the students that they are a community, and in order for the community to be able to learn together, they must create a set of agreements about how class will be run.

I suggest that the teacher offer up three basic agreements to start:

1) Please do not talk when someone else is talking. If you want to talk, please raise your hand.

2) Please keep your hands and feet to yourselves.

3) Please do not tell on someone else, unless they are endangering themselves or someone else. If someone is doing something in a way that you think is incorrect, please let the teacher do the correcting.

The third agreement is meant to encourage the students to keep the focus on their own behavior in class, and to minimize opportunities for conflict between students.
After giving out these three agreements, see if the majority of the class agrees with them.

In the event that the class does not like these suggestions, you have several options: One is to remind them that these agreements can be changed later in the year if they don't appear to be working. Then you can vote again and see if more people are willing to go along.

Two is to remove whatever agreements the majority dislikes; certain classes may not need these things to be stated as hard-and-fast agreements. Try a class or two and see what happens. If it becomes obvious that the agreement really is necessary, point it out to everyone and vote again.

If the class votes down an agreement, and you cannot function without it, you can always force the issue, explaining that you simply cannot teach without the agreement in place. The class may not be ready to assess their own behavior, and may require a more authoritarian presence. On the other hand, rather than simply taking the power from them, you can explain the problem: they have voted down this agreement, yet you cannot teach without it, then ask for suggestions about what to do now.

While time consuming, the conversation that follows may be necessary for some of the students to recognize the need for the agreement. Again, you can remind them that the agreements can be modified and, if unnecessary, removed. As long as the scope and duration of such a conversation is kept in check by the teacher, the experience can be a valuable seed for a stronger group cohesion and commitment to the community.

Once the first three agreements are determined, take suggestions from the class for others. If you vote on all suggestions, the majority will usually eliminate silly or unnecessary ones like "No time traveling." (Of course, there's nothing wrong with having a silly agreement on the board if the majority of the class wants it up there, so long as everyone understands the rest of the agreements are not silly.) After a while, the suggestions will begin to repeat and you can stop.

The whole process can take between ten and twenty minutes, and can be expedited by the teacher if it looks like some of the kids are losing focus. At the

beginning, at least, most are happy to help determine the rules, even if they won't always follow them!

When the agreements are all finalized, explain that it is your job to make sure that everyone complies with what they have agreed upon. Tell them you will use the following process:

If someone fails to follow an agreement, they will receive a green card. The second time they fail to follow an agreement, they will receive a yellow card. The third time, they will receive a red card and will spend the rest of the current activity in time-out. Once out of time out, if they fail to follow an agreement, they will receive a second red card and will spend the rest of the class in time-out. In addition, you will contact their parents to communicate that they have had difficulty following the agreements despite several warnings.

A person who is disruptive in time-out will be removed from the classroom. Given that there are many steps before this drastic one, this can be a rare or completely unknown occurrence.

At the end of class, gather up all the cards and count them. Compare them to the number of cards the students got last week. Ask them if they think they received more warning cards last time, or less. Upon informing them of the difference, you can see if they have a goal in mind for the extent of their improvement, for example "No yellow cards next week." As the year goes on, insist on higher goals.

Ask them to raise their hands and come up with three things that they believe they could improve on *as a group*. Let them know that they can seek to improve good things as well as bad things. For instance, "We could sing better, even though we sang well."

Ask them to come up with three things they believe they did well, so as to end on a positive note.

This plan differs from the typical discipline plan in several important ways.

1)   The teacher's attitude towards the giving of the cards must be neutral. The cards are reminders, not punishments. Receiving a green card is not a sign of failure; it is a more tangible means of redirecting a student to the agreements. A time-out, while punitive, need not be seen as a shameful occurrence, but rather as a necessary opportunity for a particular student to refocus. The subtle difference between cards as reminders versus punishments is that students are redirected to the agreements and their current ability to follow them, rather than on the emotion of shame or anger.

2)   Students assess themselves on their ability *as a group* to keep the agreements. Again, the focus should be on how we are doing, and where we would like to be, rather than how we have failed.

3)   Students are following agreements that they themselves had a hand in creating. It is interesting to occasionally revisit agreements that seem to be superfluous and ask the students if they want to remove them. If students can function without written reminders, they have internalized an aspect of their community.

This approach to creating a viable classroom community may seem like window-dressing on a simple behavior policy. Indeed, it can be done this way. But the metacognitive elements in the plan are not fictitious or idealistic. On the contrary, they have real and important ramifications on the way students and teachers will relate.

If a teacher is faced with an entire classroom full of talkers and it becomes impossible to dole out 20 green cards, then the teacher has recourse to a simple solution: Stand still and quiet until the children stop talking. Why? Because the agreement is that no one will talk when someone else is talking. The teacher is relying upon the agreements not just as a means of control, but as a set of guiding principles. By adopting this strategy, the teacher is able to use the agreements as a reminder of his or her own responsibility to uphold the integrity of the relationship. This will strengthen the teacher's own perception of his or her connection with the students as a living, vital thing and will deepen its reality for everyone.

The group relationship is not merely a circumstantial thing. In some cases, a student's identity as part of a group can provide opportunities for growth that are absent for them as individuals. I once had a first grade student with behavioral issues. As we were playing a class skill game, she was called "out." Immediately, she began to pout and, despite my reassurances, to cry, and then to act out in more violent ways. She continued to disrupt the class with her wailing and I began to wonder whether she was genuinely distressed or was simply seeking attention from me.

Suddenly I announced to the class that we had gotten fewer green cards this week than last week, and that I was immensely proud of their improvement. Upon hearing this news, the child immediately stopped her crying and became very happy. She left the classroom in a good mood, no sign of her tantrum evident anywhere.

In this case, her association with the group provided her an opportunity to escape her perceived failure. She had an identity as a member of the class which proved stronger than her identity as an individual , even though her behavior immediately prior had served to sever herself from that group. Because this child recognized the class identity and its responsibilities under the agreements, its improvement was her improvement, and she was willing and able to change her own self-image from "failure" to "success." The result was an individual transformation that might not have been effected any other way.

Appendix Two: Sample Metacognitive Lesson Plan

This lesson offers students opportunities to assess their current ability, provides room for improvement without penalty for failure, and works towards a distal goal. The activities in the lesson each focus on a differentiated skill needed to accomplish the distal goal, with the final activity designed to reintegrate the skills at the end to bring the students closer to the needed skill-set.

Grade Level: Grade 2

Distal goal: The students will perform a rhythmic accompaniment to the song "The Lion Sleeps Tonight." The class will be divided into four groups, each of which will accompany the song with a different two-measure ostinato. This performance will occur on the last class before the Winter Break.

Prior Learning: Students have previously played the Ryhthm Bee, have been taught the song "The Lion Sleeps Tonight," and have a familiarity with quarter-notes, eighth-notes and their use.

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Higher Wiggle Number 10

Reminder of community goal: To get no yellow cards today, a slight improvement over last week.

Activity Number One: Rhythm Bee

The Rhythm Bee is a spelling bee with rhythm. Each child will get two rhythm sticks and will stand up at their place. The teacher will beat a rhythm of one hit on his or her own sticks, and each child will take a turn copying. Then the teacher will beat a rhythm of two hits and each child will copy it (either two eighth notes or two quarter notes). It is expected that everyone will be able to imitate a one- and two-beat rhythm perfectly. The teacher will then create a rhythm of three beats (for example, eighth note – quarter note – eighth note) and again the students will copy. If anyone copies the rhythm incorrectly, they must sit down and take notice of the number. Continue this process, adding numbers of hits, with each child discovering the maximum number of hits they can remember. If a child needs the rhythm repeated, the teacher will repeat it *one time*. Continue until the last child cannot imitate the rhythm.

The children have played this game three weeks before, and the teacher asks them to recall what number each of them got to last time. Then the teacher asks them to decide what number they think they're going to reach this time, whether they will improve, stay the same, or get worse. Teacher reminds them that they are not competing against each other, but are comparing their past performance to this one.

Teacher asks children to briefly share what strategies they use to remember the rhythms. Teacher invites children to try different strategies to see if they improve their performance.

Activity Number Two: Distraction game

Teacher leads students in the song "The Lion Sleeps Tonight." Students have already had some practice singing this song, and can sing it with the teacher. Teacher has students sing song without the teacher's help, listening to one another for cues when there are memory slips. If the entire group can get one another through the song, teacher moves on to game.

Teacher explains that the students' job is to sing the song no matter what the teacher says or does during the performance. The teacher will try to distract them so that they forget the words or can no longer continue. If this happens, the teacher wins. If students make it to the end of the song, they win. For additional instruction, teacher can insist on certain elements of the song, such as a *crescendo*, accented notes, or an accelerando, and so reinforce other previously taught information.

Students begin singing, and the teacher tries to distract them with loud noises, conversation, and singing another song. At the end, students are asked to assess their performance. If time allows, discuss what a student should focus on (the other voices) and what a student should tune out (the teacher). Then ask the students if they believe they will improve with a second performance.

Activity Number Three: Rhythmic accompaniment

Ask students to select a percussion instrument from one of four types (i.e. – bells, sticks, drums, shakers). Lead students in one of the four rhythmic accompaniments to "Lion Sleeps Tonight." Have them read it off the board while they speak the rhythm. Then transfer the rhythm to their instruments. Again, play the distraction game, this time letting them know that they must keep the rhythm going no matter what teacher does. Ask them if they think this will be easier or more difficult than singing.

Teacher attempts to distract students with other rhythms while they play theirs, and assesses their current level of ability. If they are doing well, teacher then picks another of the four rhythms and redoes the process with that one. If they are having difficulty, teacher simply sings or puts on the CD of "Lion Sleeps Tonight" as the "distraction" and guides students in their directed listening.

If students are able to do two rhythms successfully, divide into two groups according to instrument choices so that like instruments are with one another. Give one rhythm to one group and the other rhythm to the other. Each group must play their rhythm and not the other group's rhythm. Point out that in this activity, each group is the "distraction" for the other.

If students can keep both rhythms going, add the CD or sing along.

Closing: Community Questions

Ask students if, based on the cards they received, they have been a more successful community than last time. Compare this time to last time, and check on the

goal of the day. Ask students to name three things they did well, and three things they

could do better as a group.

Appendix Three: Higher Wiggles

1. Hold up index fingers at shoulder width, then bring hands behind back. Hold up pinkies at shoulder width, then bring hands behind back. Hold up one pinky and one index finger at shoulder width. Do kids notice that there's two different kinds of fingers up? To clue them in, bring the fingers together and watch to see how many change what they're doing. If they still don't get it, make a big show of looking at both fingers.

2. Hold up two fists like you're gripping a steering wheel at 10:00 and 2:00. Bring the fists together. Bring R fist gently down on top of L fist (L thumb touches R pinky). Bring L fist gently down on top of R fist. Bring R fist gently down on top of L fist, and pretend like L fist is knocked out of its spot (like a billiard ball); L fist moves down and circles around until it stops on top of R fist. Now reverse it: Bring L fist gently down on top of R fist, and pretend like R fist is knocked out of its spot; R fist moves down and circles around until it stops on top of L fist. Now come from below instead of above: L fist bumps up on R fist, knocking it out. R fist circles around and stops below L fist. Reverse it: R fist bumps up on L fist, knocking it out; L fist circles around and stops below R fist. Now make this a continuous movement where the hands alternate bumping without stopping. Make a continuous movement with one hand coming down on the other. Make a continuous movement with one hand bumping the other up. Now do your own pattern, bumping up or down as you choose. Are the kids able to follow you?

3. Hold your hand so the palm is facing you, fingers pointing left. Bring the hand in front of your R shoulder. Open and close the pinky so you have what looks like a fish opening and closing its mouth. Move the fish from R to L. Do the same thing with the opposite hand, moving the fish L to R. Now go from R to L with your R hand, opening and closing the pinky and the fourth finger (Looks more like scissors). Other hand other way. Now move R hand from R to L, wiggling just the index finger. Before finger makes it all the way L, left hand jumps up and "swallows" R hand, like a fish eating a worm. Go for the surprise laugh.

4. Stick out your tongue. Pull it in. Repeat. Stick tongue out of R side of mouth. Pull it in. Stick tongue out of L side of mouth. Pull it in. Stick tongue straight out, and move it to the R side of mouth, then to L side of mouth, then back to center before pulling it in. Tilt head to R. Stick tongue out of right side of mouth. Pull in. Tilt head to L, but again stick tongue out of right side of mouth. Are they paying attention? Tilt head to R, and stick tongue out of left side of mouth. Are they paying attention? Move tongue back and forth, and tilt head opposite to the tongue (when tongue is L, head is R)

5. Clasp hands in front of chest with R thumb on top. Wiggle thumbs and tap them together. Unclasp hands. Clasp hands with L thumb on top. Wiggle thumbs and tap them together. Unclasp hands. Hold thumbs up at shoulder width. Place right thumb on top of left thumb, making an "x." Lace up rest of fingers without moving thumbs. Unclasp hands. Place left thumb on top of right thumb, making an "x." Are they watching? Make sure they see that there's a difference. Put

right thumb on top. Left thumb…etc. like you're climbing a staircase. Stop with left thumb on top. Lace fingers. Tap thumbs together.

6. Hold right hand up. Hold one finger up. Change to two fingers. Change to three fingers. Change to **five** fingers. Did they go to four? Bring down R-hand. Bring up five fingers of L-hand. Change to four fingers. Change to three fingers. Change to **one** finger. Again, did they follow? Keeping L hand and one finger up, bring R-hand all five fingers up, so you're holding up one with LH and five with RH. Change to two with LH and four with RH. Change to three with LH and three with RH. Change to **one** with LH and **five** with RH. At this point, they'll probably start laughing.

7. Hold up two fingers on each hand. Cross the wrists in front of you so that the RH is on the left, and the LH is on the right. Change LH to one finger. Are the kids matching you, or are they confused? Change LH to two fingers. Change RH to one finger. Again, can they follow? Change RH to three fingers. Change LH to three fingers. Change LH to four fingers. Change RH to four fingers. Change RH to five fingers. Change LH to five fingers. Wiggle all ten fingers with wrists still crossed.

8. Puff out cheeks. Let them loose. Puff them out. Let them loose. Puff out right cheek only. Left cheek only. Right cheek only. Right cheek only (are they watching?) Right cheek only, then silently bounce left index finger off inflated cheek. Left cheek only, then silently bounce right index finger off inflated cheek. Left cheek only, then press on left cheek with left index finger, pushing air from left cheek to right cheek. Now right cheek only is inflated. Push on right cheek

with right index finger, pushing air from right cheek to left cheek. Now left cheek

only is inflated. Push on left cheek with left index finger, but do not let left cheek

deflate; Instead, puff out both cheeks. Silently bounce left and right index fingers

simultaneously off left and right cheeks. Gently push on left and right cheeks

simultaneously with left and right index finger, expelling all the air from both

cheeks.

9. Hold up two fingers of right hand. Wiggle them, as if fingers were walking.

Begin "walking" on face with two fingers of right hand. Explore the territory of

your forehead, cheekbones, and bridge of the nose (the bones that resonate most

strongly in singing!). Let that go, and hold up two fingers of left hand. Do the

same brief exploration with the left hand. After exploring with the left hand for a

few moments, bring the right hand back and begin walking with it as well, so that

both hands are independently exploring the bones of your upper face. Bring the

hands to a position where the fingers of each hand almost come together to make

a diamond shape in front of your cheekbones and eyebrows – in other words, you

are making "raccoon eyes" with your fingers and looking through them at the

kids. Hopefully this will get a laugh.

10. Hold R-index finger in front of your face with the palm facing L. Bend the finger

joints first at the top two knuckles, then the bottom knuckle, so that your finger

looks like it's "taking a bow." Then straighten the finger . Do the same thing

now with all four fingers on the R-hand, bending the knuckles and unbending

them. Bend a second time, but now after the knuckles bend, the wrist bends too.

Continue this movement by bringing the wrist down and the elbow up. Straighten

the hand as it goes down. It looks like the hand is "diving," or like you are dipping your hand into a vase full of water. Bring the wrist back up and elbow down, and unbend the hand in a complete reversal of this movement. Now repeat this sequence with the left fingers and hand alone. When you have done the movement on the left, you'll do both hands together: bring both palms together. Bend the knuckles so the fingernails are all touching each other. Then touch the next joint of each hand to one another. Then the next. Finally bring the top of the two wrists together. Reverse this movement exactly until fingertips are touching again. Now that you have refined the idea of the movement with two hands, do it with the both hands *not* touching, but mirroring each other. Are the hands able to make the movement more elegantly now? Again, do the movement with both hands touching each other, but this time interlace the backs of the fingers. Turn the palms up towards you to show the "flower garden" of fingers sticking up.

11. Hold both hands palms out towards the class. Wiggle the fingers of both hands. Stick thumbs in the air. Wiggle right thumb. Interlace fingers making it clear that the right thumb is on top. Wiggle right thumb with fingers interlaced. Wiggle left pinky (which is on bottom). With fingers still interlaced, put left thumb on top of right thumb. One by one, keeping fingers interlaced, switch all fingers until left thumb is on top and right pinky is on the bottom. Wiggle right pinky. Wiggle left thumb. Pull hands apart and hold palms out. Wiggle left thumb.

12. Hold up right fist at chest level. Put left fist on top of right fist. Put right fist on top of left fist. IMPORTANT: Don't let fists sink. Go up like you're climbing a staircase. Are the kids copying this, or are they letting the fists sink? Currently,

your right fist is on top of your left fist at eye level. Bring right fist *under* left fist.

Now left fist under right fist. Now we're walking *down* the stairs. Bring right fist

over left fist. This time, take right fist up again, one fist-width, so it's floating in

the air over the left fist. Take right fist up another fist-width step. Are kids

copying, or did they just keep doing the alternating fists pattern? Bring right fist

down to left by step. Take left fist down a couple of steps by itself. Bring it back

up. Bring right fist up a step by itself, and left fist down a step by itself. Two

fists are now three fist-widths apart. Move two fists independently up and down.

Kids will probably laugh at how hard it's gotten!

13. Hold both hands in the air. Wiggle the fingers of the right hand. Stop. Wiggle

the fingers of the left hand. Stop. Wiggle the fingers of both hands. Stop the

fingers of the right hand only, so left hand is still wiggling. Now wiggle right

hand again so all fingers are wiggling. Stop the fingers of the left hand only, so

right hand is still wiggling. Alternate fingers wiggling. Do a few variations on

this and see if they can follow you. (To make this more challenging for older

kids, try adding the element of holding one of the hands higher than the other. At

first, you can raise the wiggling hand. Later, you can sometimes raise the

wiggling hand, and sometimes raise the hand that is still!)

14. Hold right fist in the air, shoulder height, fingers facing class. Move fist slowly

clockwise in a circle several times. Drop R fist. Raise L fist. Move L fist slowly

clockwise. Bring up R-fist to join L-fist, moving both clockwise, with each hand

at the same "time on the clock" (R 3:00 and L 3:00; R 6:00 and L 6:00 etc.)

Reverse the spin of the hands so they are both moving slowly counterclockwise

together. Did the kids follow the change? Are they still watching? Now take the hands out of phase, so that they are moving the same rotation (counterclockwise), but while R-hand is at 3:00, L-hand is at 9:00. When L-hand is at 9:00, R-hand is at 3:00.

15. Raise R-hand shoulder height and hold it, palm facing out. Make a fist one finger at a time, starting with pinky, so the thumb is resting on the outside of the fingers. Now reverse it; open hand from thumb to pinky. Repeat now with L-hand, close from pinky to thumb.   This time, R-hand, close from thumb to pinky, so the thumb is inside the fingers. Then open from pinky to thumb. L-hand, close from thumb to pinky, open from pinky to thumb. Now both hands together, close pinkies to thumbs, open thumbs to pinky. Both hands, close thumbs to pinkies, open pinkies to thumbs. (To make it more difficult, one hand can close thumb to pinky while the other closes pinky to thumb).

16. Hold an imaginary set of handlebars (that is, fists are pointing out at class), about chest height, shoulder width apart. Move one fist forward and one back, and begin making circles with fists as if you were moving bicycle pedals with your hands. Reverse the direction of the rotation of the fists (are they watching?). Now point the fists at one another and rotate the fists around one another (same movement as before, fists pointed at each other). Switch directions. Now take the left fist and point it at the class, while keeping the right fist pointed at the left arm. Rotate the fists in the same movement as before (both are making circles going from back to front, but are pointing different directions). Reverse it.

Switch fists so that the right fist is pointing at the class and the left is pointing at the right arm. Reverse it.

17. Hold up hands, palms out. Tap index and thumb together on both hands so kids notice them. Bring thumbs and index fingers of both hands together at a single point. Take hands in opposite directions around an imaginary circle that is parallel to your chest. Then bring them back to the top. Now take hands in opposite directions around an imaginary circle that is perpendicular to your chest (if it were a saw blade, it would split you into left and right halves). Then bring them back to the top. Now take fingers and thumbs to a point about two feet in front of your navel. Take hands in opposite directions around an imaginary circle that is horizontally perpendicular to your chest (as if the saw blade were lying on a tabletop). Bring them back out. Now for the weird one: bring your fingers back up to the original point. Take your hands in opposite directions around a circle that is diagonal to your chest (a circle rotated halfway between the first and second circles that you drew). Can the kids find this fourth circle?

18. Hold up right hand just in front of right shoulder. Hold up right palm to face students. Turn palm to face the left. Keeping palm to the left, gently and slowly move right hand across the body until it is in front of the left shoulder. Without turning the palm, take the hand backwards to its original spot. Repeat this movement. Lower right hand. Hold up left hand just in front of left shoulder. Move left hand forward (towards the class) about a foot, and then keeping palm facing forward, bring it backwards to its original spot. Repeat this movement. Keep left hand in front of left shoulder. Raise right hand in front of right

shoulder, palm facing left. Bring right hand across the body until it reaches the left hand. Keeping right hand still, bring left hand forward. Bring left hand backward until it reaches the right hand. Keeping left hand still, bring the right hand backward until it returns to its starting place. Now simultaneously bring right hand to the left and bring left hand forward, moving both hands at the same speed and stopping them both at the same time. Reverse this movement so that both hands return to their starting position. Repeat this movement. Now turn the front-facing left-palm towards the right, and turn the left-facing right palm to the front. Simultaneously bring the left hand to the right, and the right hand to the front at the same speed, stopping them both at the same time. Reverse this movement so that both hands return to their starting positions. Were the kids able to do the mirror version of the movement?

19. Palms together in front of chest. Move palms to the left, keeping head and upper body still. Bring palms back to center. Move palms and head to the left. Back to center. Move palms to the right, keeping head and upper body still (Did they move their head?) Back to center. Move palms and head to the right. Back to center. Move palms to the left and head to the right. Back to center. Move palms to the right and head to the left. Back to center. Move palms to the left, then head to the left, then palms through the center all the way to the right, then head through the center all the way to the right, then palms to center and finally head to center. Did kids follow you?

20. Hold up right arm. Slowly wave it to the left in front of your body. Repeat. Drop right arm. Hold up left arm. Hold up left arm, and slowly swing it *behind* your

body (carefully! Don't hurt yourself!). Repeat. Swing left arm to the right behind your body, and wave right arm to the left in front of your body at the same time. Reverse it: Swing right arm to the left behind your body, and wave left arm to the right behind your body. Wave both arms in front of you so they cross. Swing both arms behind your body so the arms cross behind you.

21. Make two fists. Put them together in front of your stomach so the thumbs touch and knuckles are pointing upward. Without moving your torso, take the arms and fists in a slow clockwise circle parallel to the floor. Go around two times. Then reverse the circle so it goes around counterclockwise two times. Take the fists clockwise halfway around the circle, then split the fists so one continues around clockwise and the other goes back counterclockwise. The two fists meet in front of your stomach. Now reverse it: take the fists counterclockwise, and split them in the same place. The fists will meet again in front of your stomach. Now take the fists in a complete circle clockwise, and when they return to your stomach, split them so one fist continues clockwise and the other goes counterclockwise. They will meet at the far end of the circle about a foot from your stomach. Now reverse it, taking them from that spot counterclockwise until they are right in front of your stomach, at which point they split and circle back out. Finally, alternate them; bring the hands clockwise and split them at your stomach, then when they rejoin, without stopping take them counterclockwise and split them at your stomach. Repeat until a couple of the kids are smiling to themselves.

22. Lift your right arm in the air. (Which arm are they lifting?) Lower it. Lift it again. (Did they switch arms to mirror you or to match you?) Lower it again.

Lift your left arm. (Did they switch?) Lower it. Lift your right foot. Lower it.
Lift your left foot. Lower it. Lift your right foot and right arm. Lower both. Lift
your left foot and left arm. Lower both. Lift your left foot and right arm. (Did
they all copy you?) Lower them. Lift your right foot and left arm. Lower them.

23. Bring your right hand slowly up to shoulder height. Lower it. Bring both hands
up to shoulder height (are kids watching?) and lower them. Bring right hand up to
shoulder height. As you lower right hand, raise left hand. Leave left hand up and
raise right hand. Lower both hands, but lower the right hand much faster than left
hand. The right hand goes down, comes up and goes down again in the same
amount of time it takes for the left hand to go down once. (In a way, the left hand
appears to be going up, even though it's coming down! What are the kids doing?)

24. Raise right hand. Open and close hand twice in a "hello" wave. Open and close
many times. Begin opening and closing in a steady beat. Drop right hand.
Repeat this sequence with the left hand only. Repeat this sequence with both
hands. Now with both hands up do two beats with the left hand, two beats with
the right hand, back and forth. Finally, do one beat in the left hand, one in both
hands, one in the right hand, one in both hands, back and forth. Can any of the
kids do this? Did they notice?

25. Raise right arm. Lower right arm. Stick left arm out in front of you. (Did kids
change arms?) Pull in left arm. Raise left arm. Lower it. Stick right arm out in
front of you. Pull in right arm. Raise both arms. Lower both. Stick out both
arms. Pull them in. Raise right arm, stick left out. Pull them in by flexing

elbows. Raise left arm, stick right out. Pull them in. (Are they able to switch back and forth?)

26. Bring R-index finger and R-thumb together. Raise R-hand to about eye-level. Throw an imaginary dart with R-hand (R-hand moves away from R-shoulder, and thumb and forefinger move apart). Reverse the throwing movement by catching an imaginary dart with R-hand at eye-level (As R-hand moves backwards towards the right-shoulder, thumb and forefinger come together.) Notice the difference between the thrust of your fingers with the throwing movement and the strange feeling you get when you reverse it: as you "catch" the dart, your hand speeds up as it moves towards the shoulder, and then suddenly gets still; it's a little like a reversed recording of a piano, with each note accelerating in loudness until it suddenly stops. Do this same movement on the left side, throwing and catching. Now throw and catch with both hands simultaneously. Now throw with R-hand while catching with L-hand, and throw with L-hand while catching with R-hand. Pay close attention to whether you are really able to pay attention to the different articulation in each hand, and not just move the arms! What about your kids?

27. Clap. Now clap so slowly that when the hands come together, they fail to make a sound. Hold both hands in the air, then drop the left one. "Clap" with the right into the empty air where the left used to be. Drop the right hand, and raise the left hand. "Clap" with the left hand into the empty air where the right used to be. Hold both hands up. Slowly clap and "miss," bringing the right hand closer to you than the left. Again, slowly clap and "miss," bringing the left hand closer to you than the right. Slowly bring the hands together in another "silent clap." Now

quickly "clap and miss" two times in a row, once with the right arm closer to you, once with the left. Pause. Clap normally.

28. Stand with both palms facing the floor at hip level. Slowly bring them towards the ceiling. When they reach your head, bring them down again. Repeat this movement. Bring both hands, palms out, in an arc from somewhere in front of the right hip to somewhere in front of the left hip, then from the left to the right. Holding the right hand still, bring only the left hand in the arc from right to left, and leave left hand on the left. Keeping the left hand still, bring the right hand in an arc from right to left, and then back to the right. Keeping right hand still, bring the left hand in an arc from left to right so both hands are back together again. Keeping left hand still, bring right hand in front of the left hand, in an arc from right to left (this will cross the arms). Keeping right hand on left side, bring left hand in an arc from right to left so the hands are together, then bring it in front of right hand and move it from left to right (again, crossing the arms). If desired, bring the right hand from left to right to bring the hands together, cross it in front of the left, and arc it from right to left.

29. Stick R index finger into the air. Paint an invisible circle in the air, about the size of your torso. Wiggle your index finger. While wiggling your finger, paint the circle going the other way. Do the same thing with the L index finger, normal and wiggling. Put two index fingers together. Trace a circle with both fingers. Wiggle both fingers. Trace the opposite circle while both fingers wiggle. Hold both fingers still together at the top of the circle. Taking one finger one way and another finger the other, draw the circle so that the fingers meet at the bottom.

Wiggling the fingers, bring them back along opposite sides of the circle to meet at the top. Now trace one side of the circle with a still finger and trace the other side with a wiggling finger. When they meet, the still finger wiggles and goes back up the way it came, and the wiggling finger gets still and goes back the way it came until the fingers meet at the top. (Alternately, you can draw one circle with a still finger while you draw another with a wiggling finger.)

30. Hold R fist in front of R shoulder, right thumb on the left (so back of the hand is towards your face). Open the fist suddenly as if the fingers were exploding, and let the open hand with loose fingers drift gently forward and down (Call this "exploding the hand") Repeat this on the left side. Repeat using both hands. Now R-hand only, explode the hand, but instead of moving it forward, move it **left** and forward, crossing diagonally left in front of the body. Do the mirror-image of this movement with the left hand, crossing diagonally right in front of the body. Explode both hands diagonally left. Explode both hands diagonally right. Explode both hands simultaneously so the arms cross in front of your face, right arm going diagonally left, left arm going diagonally right. Keep arms crossed, hands in fists and wrists glued together. Explode both hands and take the entire arm-structure diagonally left. Repeat and take it to the right. Repeat and take it straight up, uncrossing the hands and turning them around so the knuckles are facing front. Gently lower hands and wiggle fingers in a final fireworks display.

31. Show your teeth without smiling. Hide your teeth and smile with lips only, no teeth showing. Repeat. Show the teeth only on the right side of your mouth.

Close up and then show the teeth only on the left side of your mouth. Show all teeth without smiling. Smile on the right side of your mouth with lips only, no teeth. Now the left side only, no teeth. Smile on the right side of your mouth with your lips, and show the teeth on the left side of your face. Reverse it, smiling on the left side of your mouth with your lips, and show the teeth on the right side of your face. Smile normally, using teeth and lips.

32. Hold your right hand at the level of your right shoulder. Point with your index finger to the left. Wiggle your index finger and move the hand to the left, so that the finger appears to be "swimming" to the left. Repeat the mirror image of this movement on the left. Now with your right, point the index finger and middle finger to the left. As you move the hand to the left, alternately wiggle the fingers (like two legs kicking). Repeat the mirror image on the left. With your right hand, point the index, middle and fourth finger. As you move the hand to the left, rotate the hand around the middle finger so the fourth finger is high, then the index, then the fourth, and so on. Repeat the mirror image on the left. With your right hand, point all four fingers (no thumb) to the left. As you move the hand to the left, wiggle the four fingers, preferably from pinky to index and back again, in a natural opening and closing movement of the fingers. Repeat the mirror image on the left. Hold both left and right hands at the level of left and right shoulders, the hands facing towards each other, making "c" shapes. As the hands approach one another, wiggle all ten fingers. As the fingers touch, keep wiggling them so the fingers tap wildly on one another.

33. Hold your right palm out at shoulder height, as though you were miming putting your hand on a wall. Slide the hand down the invisible wall towards the ground. Do this with the left hand. Repeat with the right hand. Repeat with the left hand, but as left hand is going down, bring right hand down also, twice as quickly. When right hand reaches bottom, take it back up and bring it down again. In other words, the right hand will descend twice during the left hand's single trip. Now bring left hand back up slowly, and bring right hand up two times, twice as fast. Reverse this, so that the left hand is the fast hand and the right is the slow, going down and going up. Keeping the right hand frozen up high, bring the left hand down in preparation to slowly raise it. Slowly raise the left hand while slowly lowering the right hand. When both hands get to the center, turn the hands sideways. Let the hands overlap, the right hand closer to your body than the left, with the palms facing inward.

34. Hold up R hand at head height, fingers at a slant, palm facing inward. Put left palm on right palm (fingers of left hand will be at the opposite slant) so hands are clasped in front of you. Turn the wrists and unclench the hands for a moment, then reclench them with palms now facing each other in the opposite direction. Repeat, to put the hands back the way they were. Bring your clasped hands in front of your left shoulder. Bring them in front of your right shoulder. Unclench and reclench with your hands turned. Move your clasped hands in from of your left shoulder. Unclench and reclench with your hands. Unclench and reclench your hands as you move them from the left to the right shoulder and back. Clench

your hands and raise them above your head in a "the winnah" pose. Shake your hands.

35. Draw a circle in the air in front of your face with the right index finger. Now draw the same circle with the right pinky. Now draw it with the right thumb. Do the same thing using the fingers on the left hand. Now draw two simultaneous circles with the two index fingers, the two pinkies, and then the two thumbs. Now draw the two circles using the index finger of the right hand and the thumb of the left; now the pinky of the right and the thumb of the left; thumb of the right and pinky of the left; thumb of the right and index finger of the left. Hold the right index finger up, and the left thumb up (no circles). Switch to right thumb and left index finger. Go back and forth between these two.

36. Touch the fingertips together in front of your face, with the fingers pointing towards the ceiling. Move the right thumb to touch the left pinky, then bring the fingertips back together. Move the left thumb to touch the right pinky, then bring the fingertips back together. Move the right thumb to touch the left hand's fourth finger, the third finger, then the index finger, before bringing the fingertips back together. Now repeat on the left side, bringing the left thumb to touch the right hand's fourth finger, third finger, then index finger, before bringing the fingertips back together. Now shift the five right fingers over one, so the right thumb is touching the left index finger, the right index is touching the left third finger, and so on, with the right pinky and left thumb touching nothing. Bring the fingertips back together again. Do the same thing on the other side, with left thumb

touching right index finger, and so on, with the right thumb and left pinky

touching nothing.