

# **A DANCER'S DIARY: A CLOSE LOOK AT THE ADOLESCENT DANCER'S PERSONAL PROCESS DURING CARDIO TRAINING**

## **INTRODUCTION**

Cardiovascular endurance training is an instrumental tool in dance training. It's most obvious purpose is developing the dancer's stamina, but cardiovascular training can also be beneficial in enhancing the dancers' enjoyment, promoting self-esteem and positive functioning. Furthermore we have found that it inspires dancers to take an active and responsible role in their own training.

To discover more about the multiple properties of cardiovascular endurance training two research projects were simultaneously held between October 2005 and March 2006 at the junior school of the Rotterdamse Dansacademie.

The project '*Cardiovascular Endurance training for young dancers; a comparison*' compared sport orientated aerobic training and dance orientated aerobic training to ascertain which form of endurance training can be most efficiently integrated into the dance classes of elite young dancers. Forty-five adolescent dancers, between the ages of thirteen and fifteen, took part. Dancers were interviewed, answered questionnaires and took part in a number of group discussions. Physical aspects, including the occurrence of injuries, were monitored. A shuttle run was held before and at the end of the experiment. The practical aspects of integrating cardiovascular training into the teaching of an actual dance class were looked into; the teachers were asked to give their views and opinions about the process and progress of the entire experiment. The results of this research project have been fully documented in a report published by the lectoraat *Excellence and well-being in the performing arts* at Codarts.<sup>1</sup>

The project '*Cardiovascular endurance training: a tool for active learning*' looked closely at the adolescent dancer's personal process during cardio training. It is a well known fact that cardiovascular endurance training is essential to the development of today's dancers. But how do the dancer's feel about the training? Does the dancer need to be motivated? How can cardio training help them to achieve their goals? This project asked the adolescents, the dancers of the future, their point of view, looking specifically at the individual process and progress. Individual diaries of ten adolescents were the main source of information. These diaries were collected and analyzed.

For the 'diary project' ten dancers were invited to keep a diary between October 2005 and March 2006. They were asked to answer three questions weekly, preferably on Friday at the completion of the week's training.

These questions were:

1. When did the training become very tiring this week?
2. Has the training become easier this week? If yes, explain how and when. If no, can you explain why?
3. Have you enjoyed the training this week? If you enjoyed, explain why. If not, explain why.

The dancers were encouraged to write whatever they wished. The three questions acted merely as a guideline. A few of the dancers wrote weekly while others wrote from time to time leaving gaps of a week or two between entries. Some dancers wrote extra entries on an irregular daily basis if something special occurred during training. All the dancers were very forthright in their remarks,

giving both positive and negative feed-back. Many offered personal information. One dancer apologized for his critical comments but felt it was important to write everything down. How right he is.

In the next section one example of such a diary is presented. This example, a Dancer's Diary, is a compilation of the ten diaries that were kept by eight girls and two boys, all adolescents, during the duration of a cardiovascular endurance training experiment. In the diary the young dancers tell us in their own words how the training have affected them.

The presentation of the exemplary diary will be followed by an analysis of the material from all the diaries. Although the diaries were all quite different, each dancer approaching the training in his or her individual way, similar points were raised, regardless if the diary has been written by a boy or girl or if the dancer had participated in sport aerobic cardio training or dance orientated aerobic training. The most predominant issues addressed were:

- motivation
- self-esteem
- responsibility.

In the presentation of the analysis we will show, with the help of the dancer's own words, how cardiovascular endurance training can promote positive functioning and is an effective tool for active learning.

# A DANCER'S DIARY

## OCTOBER

Week 43:

Just come back from the autumn break. It is great to be back at school. Holidays are fun but to dance again is even more fun. I am really looking forward to this semester and hope to learn many new movements and steps. Last year I used to watch the third years dance whenever I had the chance. They did so many difficult things and so many pirouettes. Now that I am a third year student I hope I will be able to turn like they did and lift my legs up as high as they do.

Our first class was exciting. We worked slowly and carefully trying to feel our posture and turn-out. The teacher stopped the class a little earlier because she wanted to talk about a new project in which we would be taking part. Dancers, she told us, need to be very fit. The fitter you are the more you are protected against injuries. She explained that we do not train cardio endurance in our daily ballet class. When an exercise is being explained or when we get feedback we often stand still. And we often have to wait for our turn to dance. This waiting does nothing for our stamina and since cardio endurance is so important for our development as dancers our class is to be part of an experiment to see if cardio training can be given within the regular dance class. We are to be guinea-pigs. During the next two weeks we will be taught the training programme. In November we will be doing a shuttle run to test our cardio endurance. After that we will be training three times a week until March next year.

Tuesday: We started to learn the cardio training; it was not at all what I expected. When I think of cardio I see people in sport shoes doing all types of steps. Instead our teacher taught us a dance sequence like the ones we normally do in class. It was a long and beautiful adagio. Some of the steps and movements we had never done before. Our teacher told us not to worry; in a few weeks it would become easier to do.

Wednesday: Why do we ever go on holidays? My muscles hurt. We did a slow barre concentrating on posture and placement. In the centre we worked on the adagio and made it a little longer. Our teacher asked us to immediately perform the adagio as if we were dancing on stage. We started to learn the balancé section. This I really loved; I feel as if I am really dancing.

Thursday: My body is slowly coming back into shape. I took a long bath yesterday evening. My muscles are not longer protesting. After the barre we practiced the adagio a few times and continued to learn the balancé section. That section is so nice; balancés in all directions and lots of pirouettes. Today we started to learn part of the jumping section.

Friday: The body is improving. The soreness is practically gone. The exercises are becoming a little more difficult. We practiced the adagio and balancé section and learnt a little more of the jumps. These exercises do not make me really tired. Today we filled in a questionnaire which asked all sorts of questions about injuries and aches and pains. Luckily I have no injuries to report. Next week Friday we are going to do the shuttle run. I really am going to do my very best. I want to know how far I can push myself. I really want to improve my endurance.

## NOVEMBER

Week 44:

This will be an exciting week. We practiced the adagio section on Monday and Tuesday. It is a long adagio starting with a grand plié in 5<sup>th</sup> position. Grands pliés are so difficult to do in the centre; you

really have to focus on your posture and turn-out. Even though there are difficult movements in the adagio I tried to work on style and presentation. We also practiced the balancé section. I love this section. Balancés are so lovely to do and great fun when pirouettes are added. I am doing single pirouettes now but later on I will try to do doubles. We are allowed to do doubles if they do not disturb the harmony of the exercises. We finished learning the jumps. We learnt section by section stopping each time to catch our breath. There are so many jumps. Sometimes we have to hold the relevé on demi-pointe, sometimes we keep jumping and sometimes we do two jumps and wait. There is so much to remember. You seem to jump forever.

Two days to the shuttle run. I cannot wait. I am looking forward to the challenge. After the weekend we start the official cardio training programme.

Our teacher surprised us today (Wednesday). Now that we have learnt all the sequences for the cardio training programme we had to combine them all. I knew that but what I, and my classmates, did not know is that we had to run for 16 bars of music in between each section, changing positions and immediately continuing with the next section. Luckily it took quite a long time to explain the whole set-up and get us organized in groups so we could only do the sequence once through. We have three groups each group dancing a different section of the training sequence. I starting with the adagio then the balancé section and finished with the jumps. In between we had to run gracefully. We could do any port de bras we wished. We did the three sequences once through and finished with a slow port de bras section like a sort of cooling down. I wanted to focus on dancing and presenting the training but instead I found myself just pushing myself through the training. Dancing, like this, for about seven or eight minutes without stopping is so different to what we usually do. And that running was the most difficult; you had to keep running at speed because there was another dancer right behind you. But it was also great fun knowing that someone was at your heels. That forced me to move as quickly as I could.

Just one more day to the shuttle run. After yesterday's training attempt I wonder how I will cope with the shuttle run. I liked the training yesterday but did not find it easy. Today we had another go at the cardio training. We need to build up the training so today we danced four sections. I started with the balancé which was nice because I danced that section twice. Some of my friends started with the jumps and that was horrible. They had to do the jumping section twice. I was tired, but not too tired, but they were totally exhausted.

From next week, our teacher explained, we will be doing the training twice through each Monday, Wednesday and Friday. Twice through all the sequences and all that running is going to be quite a challenge. I know I will manage because I want to improve my endurance.

Shuttle run: All of us gathered in the big studio and had to fill out forms to give to the sport doctors. I was in the fourth group getting awfully nervous watching the other groups. It all started easily enough but after the 7<sup>th</sup> level you could see how difficult it was to continue. Slowly dancers dropped out. Some gasping for breath and one of the girls nearly fainted. One of the girls felt so ill that she had to go to the dressing room. Some of the girls kept going strong. Two of the boys kept going right up to the last moment. We all cheered them along. It was really great. They could have gone on even longer. But they have long legs. That's not fair. I have short legs.

Finally my turn came. The first section is easy enough. After the 6<sup>th</sup> level I started to become tired but still had enough stamina left to continue. I wanted to test myself. I was determined to keep going even though each lap was becoming more and more difficult. I heard the speaker call level eight, then level nine. I had reached level nine and was still moving. I just had to go on. My legs were becoming heavier and heavier but I wanted to continue. The girls around me were stopping one by one. I told myself I would continue until level eleven. I kept telling myself that I could do it. By now just a few girls and, of course, the boys were still running. By level ten I had trouble breathing calmly and consistently. I tried breathing through my nose but that did not help. Nothing helped. I wanted to continue but could not. Just as I decided to stop I heard the speaker call level eleven. I had achieved my goal but was too exhausted to feel happy.

It took some time to recover but I had achieved what I had set out for. I had reached level eleven. Not at all bad when you consider that many people stop at level seven or eight. After the cardio training experiment has finished in March there will be another shuttle run. It will be interesting to see how my endurance is then.

Next week we start the cardio training in earnest. Tell you all about it next week.

#### Week 45

From now on I am only going to write on Friday's because I have loads of homework to do after school. We started the official cardio training this week. On Monday we danced four of the six sections and that was more than enough. That was more than ten minutes without a break. I had to keep pushing myself. Our group started with the allegro section. That meant we had to do the allegro section twice. That is tough. At the end I practically could not keep going but everybody else continued so somehow you just keep going. I enjoyed the training but was glad when we finished.

On Wednesday the cardio training became longer. We had to dance five sections. Luckily I started with the adagio section. That meant I only had to do the allegro once. That makes a big difference. I was not as breathless as Monday. It was great fun today because I could do the balancé section twice and that is so nice to perform. I focused on presentation and style and that really worked. I like this training because it is so nice to dance ballet steps and simultaneously improve your stamina.

On Friday we did the entire training for the first time. We danced without stopping for about fifteen minutes. That was not easy but great fun nevertheless. It is a great feeling when you finish the training. I know I am improving my stamina and that's exactly what I want to do. Even though I wanted to I could not focus on presentation or style. I was too occupied with just finishing the training. I enjoy the training because it is a challenge. I hope that next week I will be able to improve.

We filled in a questionnaire about our first week of training.

#### Week 46

The training went well on Monday. We did the entire sequence (six times) and I was not at all out of breath. I did get a stitch in my side. Luckily it swiftly disappeared so that I could continue dancing. This gave me a great kick. Yes I can do this! I hope I can do as well, or even better, in the Wednesday training.

Wednesday we did the entire training. I focused on my breathing and this time danced without getting a stitch. That made me happy. I even managed to sometimes think about presentation. In the balancé section I really tried to dance and perform but I still find the jumps so tiring. My arms became very heavy. I have no idea why. I enjoy the training. I really want to do the training to improve my endurance. I feel that the training is helping and that is good.

Friday: the training was great. I think that is because, with regular training, you become stronger and gain more stamina. That's my opinion anyway. Nothing more to report.

#### Week 47

On Monday's the training is never really easy. You have to get back into practice. I find the running and jumping sections especially tough. I always find the allegro tiring; I hope that that will change in the future. Sometimes I like the allegro and sometimes, when it doesn't go well, I don't but I will continue to work hard at it. I will make sure that I eventually like the jumping section. The running section is so difficult; especially the very last run. No matter, I enjoy the training because we are doing it more and more and I find that challenging.

The training on Wednesday went much better. I think it is becoming easier. When it goes well I think 'Yes, this is great. Keep going'. That gives me a real kick and then I want to do even more and focus on performing.

The training went really great today (Friday). During the second set of jumps my legs became very tired but strangely enough I regained my energy during the balancé. The training is becoming easier to do and I am less exhausted at the end. I am even finding more and more moments where I can perform. I enjoy doing the training and now that the training is less tiring I am enjoying it even more. I focused on using my abdominals today and noticed that my arms were not as heavy as before. I also had more energy. When the training goes well, like today, I want the next training to be even better. If it works I truly enjoy it. If it doesn't work then I keep practicing until it works. I never give up.

## DECEMBER

### Week 48

On Monday the training was slightly changed. We had to start the entire training with the left foot. That felt really strange. Of course we had practiced the left side but we always started with the right foot first. I think our teacher wanted to break the habit. I suppose the whole class was doing the training almost automatically. Not only did we have to start with the left side we also had to run counterclockwise. It all worked out but I had to really think the whole time. There were quite a few near mistakes and we all had to laugh but we were not allowed to stop. Because you are having fun you persevere. I enjoy the training because I know I am becoming stronger but also because each training is slightly different and that makes it fun to do. In one training you break a habit, the next training you focus on a particular aspect and the next time you work on yet another aspect. I am constantly changing my goals to suit myself.

On Wednesday our teacher surprised us yet again. She rearranged all the places. We stood next to other dancers. And once again we started the training to the left side. It felt less awkward than on Monday. We did not laugh as much. They were no near collisions. The training, including the jumps, went really well for me. Normally the jumps are the most difficult and I really have to work hard to keep jumping and to stretch my feet. But on Wednesday that went well. I am paying more attention to details now. I stretch my feet as well as I can in the running section and feel much lighter. My arms still become tired; sometimes I almost let them drop. I think that I will focus on my arms in the next training.

Today (Friday) the training was great. I surprised myself. Before we started I told myself 'I am ready to go'. And I really went for it and it worked. The training is becoming easier. I do not know why but I have noticed that with each training session I seem to have more endurance. I believe that the training does much more than improve my endurance. I become more and more determined. I want to do more and want to demand more from myself.

Some of us have been talking about the training in the dressing room and decided to do some extra training for ourselves. We no longer take the lift but run up four flights of stairs. These days I run to catch the bus and I know many of my classmates do the same thing. It is great to feel fitter.

### WEEK 49

There was no class on Monday because of the St. Nikolas party. On Wednesday we did the entire training but I felt I had missed the Monday session. It went well enough but there is no doubt about it, the training remains hard work. It is hard enough just to keep moving all that time and even harder to perform it. Our teacher emphasized that we should consider the training to be choreography and that we should be able to perform it on stage without looking the least bit tired. That is going to be a challenge because the sequences are technically not easy. But this is just the sort of challenge I enjoy. That is exactly what I like about the training; to discover how long I can sustain my energy and how far I can persevere.

Friday is always the best day. I have loads of energy. The training went well, almost automatically. The jumps are still the most difficult. We have been doing this training for some time now. I still enjoy these sequences but I would not mind a few changes. I can dream these movements. I have set myself a new goal; to always stretch my feet and to lengthen my legs in the running section. And I am still working on my abdominals. I feel I have better control of my arms now and they do not feel heavy any more. I am very happy about getting rid of that problem; it leaves me more time to concentrate on the dancing aspect.

### WEEK 50

Just two real training sessions this week. On Thursday we started a special project preparing for a Christmas demonstration.

The Monday training is never really easy. To make matters even more difficult our teacher decided that we start each sequence on a different leg. She did not tell us beforehand with which foot to start. We had to listen to her directions while we were dancing. I had to keep alert; there was no possibility of working on your automatic system. We started the first sequence of the left side and after that she called the side which followed. All of us were alert; we did not want to bump into

one another. We had to adjust quickly to her directions. I totally forget my tiredness. It was great fun and we trained hard as well.

We usually do not train on Tuesdays but one of the teachers was ill and two classes were combined. The other class also does condition training. Their training is based on sport aerobic training. It was great fun to be able to show each other our different training programmes. You could feel the competition between the classes. We only did half of our usual training. I was not tired so I joined in the sport aerobic training. I found it easy and fun. I enjoyed doing it. I found their sport aerobic training very similar to fitness training concentrating mainly on the feet and legs. It is fun but we are doing a dance training using our body totally and I just simply love dancing.

Wednesday was the last training of the year. We were in the big studio (we younger kids are generally placed in the small studios) so, this time, we really had to move. The training was so much more exhausting. During the running section we really had to cover space, stretch our foot, use our arms and be dancers. I have never moved so quickly. When you know that there are dancers running behind you, you just have to keep moving. You just simply cannot slow down and let the team down. I wish we could train in the big studio more often. It is so much more challenging when you really have all that space to fill.

After the training we filled in a questionnaire, asking us a lot of questions about the training up to now. Later we were joined by the other class and discussed our ideas on the cardio training. No training for the next few weeks. I feel that the training has helped me. Later when I dance in works by different choreographers I will need to have sufficient cardio endurance. I am certainly planning to keep working on improving my endurance. I'll write again after the holidays.

## **JANUARY**

### **WEEK 2**

Happy New Year. Two weeks without dance. I had intended to do some practicing but there was so much to do, including homework, that I could not find the time. Luckily we had an easy class on Monday morning. During the barre work I could feel my muscles complaining a little. I hoped that our teacher would forget the condition training for once. But no such luck. To get into practice we only had to do half of the training and that was a good thing. I was already tired by the second time through and by third time I was totally exhausted. My legs felt weak and I was a little out of breath. I had not realized how demanding the training really was. Before the holidays I could dance the whole training and even had time to focus on technique, presentation and spacing. Now I am happy to merely cope.

On Wednesday the training went a little better, but I still need more practice. We did four sections of the training (the teacher was still building it up slowly) and that was more than enough. I was struggling to finish. Today (Friday) I feel much better. I know I have to persevere and that is my challenge. We did the entire training. This week I focused on how I can cope with training after a holiday period. It is great to see that after a few days my body adjusted again. On Monday I thought I would never be able to cope.

Looking back this week was difficult. I thought I had lost so much of my cardio endurance. I was so disappointed on Monday. But I decided to push myself and by Friday I managed to do the training without too many problems, except that I had very little energy left to focus on anything than just physically finishing the training. Hopefully next week will be better.

### **WEEK 3**

We did the entire training three times this week. Monday's, after the week-end off, is always the most difficult day. This Monday was no different but to make matters worse the studio was very warm. We only have small windows and our teacher does not want us to open them because she is worried about the draught. She had opened the studio door but that did not help much. When she asked us to do the training I thought 'oh no, not today'. She told us that we had to be able to work in different temperatures. So we started the training and something very strange happened. During the first section I thought I would not make it but during the second balancé section I somehow got a spurt of energy and finished the training with ease. I was so happy.

Monday I proved to myself that I can persevere even if I don't feel like it. On Wednesday and Friday the training went well. I had more than enough energy to complete the training. As the training becomes easier it becomes more fun to do especially since I just love dancing the choreography. I had enough energy left now to focus on performing instead of just doing the steps. Jumps are now more fun to do because I know I can succeed. I feel I have gained more stamina and I like that feeling. Next week I want to improve again. I want the training to get better and better.

#### WEEK 4

All in all a pretty ordinary week. We trained three times dancing each training session full out. You can see that practically everyone in the class is coping with the training. We are all still exhausted at the end, but if we had too, we could do more. The training is becoming easier and I notice I am gaining stamina each week. I have more energy in the dance classes and look forward to jumping more and more. Sometimes I regret not having enough time to learn lots of new steps because we spend so much time on the training, but when the training is finished I am happy to have done it. On Monday the teacher added some new steps for the boys. They have to do entire of jumps after the port de bras. The girls can do stretching exercises or join in with the boys. I chose for the stretching exercises. After the training the splits are so easy to do. I feel myself becoming more and more flexible.

In a few weeks time there are ballet tests. We are to dance the cardio training as part of the test. We will be marked on endurance, but also on presentation, musicality, technique and team work. From now on we must consider the training as choreography and dance it as if performing on stage.

I am looking forward to performing the training. I love dancing for an audience.

### **FEBRUARY**

#### WEEK 5

The training went well on Monday. But the best training was the Wednesday training. Instead of thinking "the training is so tough, I thought that I was performing on stage. It went really well'. After the training I had enough energy left to practice my pirouettes. I had hoped that the Friday training was going to be as good as Wednesday's but unfortunately it wasn't. For some reason my right shin hurts today. It hurts most when I jump. So I have decided not to jump because that might just make the injury worse. I thought it wisest not to do the entire training today. I am disappointed because I really enjoy doing the training and want to maintain and improve my stamina. But it would be silly to just continue so this training I focused on other aspects; I worked on my adagio technique and presentation and tried to improve my port de bras. Without the jumping and running I do not feel I am really training so I have decided to train on my mother's home trainer. This evening I cycled eight kilometers at top speed while watching television. That went really well. No shin problems at all. I'll do the same tomorrow and Sunday.

#### WEEK 6

The barre work went well on Monday; my leg did not hurt. I still took a little extra care in the centre but I had no problems. I am very happy about that; I'll try and train more often on my mother's home trainer. In the week-ends I usually have some time to spare and I like to enjoy training in front of the television.

The training did not go really well on Monday. We had run a little late in class because our teacher wanted to put in some extra work on our pirouettes. I suppose she did not notice the time and suddenly she said that we had to do the cardio training. With only ten minutes to spare she decided to shorten the training to five sequences. Without warning she stopped after doing three sections just at the very moment that I felt a spurge of energy and really wanted to go for it. That felt really strange and I was very disappointed at having to stop so unexpectedly. Looking at the bright side; I did not overwork my shins.



On Wednesday we did the full training and I felt great. I was totally exhausted but I had fun. Some classmates complain that the training is becoming boring, I but I never find the training boring because the steps are so nice to do and now that the training feels easier I have more time to concentrate on improving my performance.

Today (Friday) we had class in the large studio. Cardio training there is so challenging. You really have to move. Weeks ago, when we were last in the large studio, I just managed but today I was really in form. I moved as quickly as I could. After the third section I felt as if I had wings. It was a lovely feeling. I discovered something today; it is useful to count the music whilst jumping. Counting really works for me, it peeps me up. I jump higher and have more air.

#### WEEK 7

Last week before the holidays and there is still so much to do. We are preparing the test class which is immediately after the holidays as well as doing our cardio training. The training no longer makes me tired. The easier it becomes the more I enjoy it and find the time to dance. I have found quite a few moments where I can rest during the training. In the balancé section I know how to achieve a lot without using too much effort so that I can spare my energy for the jumps. I have been concentrating on using my abdominals and pay extra attention to my breathing; that all helps to keep me going. Some other girls and I have been going in with the boys when they do their final jumping section. It is so much fun trying to keep up with the boys. Of course I still stretch afterwards.

Funny, instead of making me tired, the training makes me feel energetic. Even in the normal academic classes I have more energy. I truly look forward to the training these days.

Holidays next week. I think I will do some extra training on the home trainer. After the Christmas holidays I was back in training in about a week. I hope I will be back in form quicker after these holidays. I'll need to be; the test class is on the very first Tuesday after the holidays.

### MARCH

#### WEEK 9

On Monday we did the training three times. That was logical being the first time after the holidays. It did not really go all that well; I was totally exhausted even though we only did it three times.

On Tuesday we were all very nervous and excited. Fortunately our test class was in the morning. After Monday I was a little worried but, perhaps because the teachers were watching, it went really well. We only performed half of the cardio training because we still had a modern dance test after ballet. The training went really well. Everybody worked together as if we were dancing on stage.

On Wednesday we performed the whole training and that really went well. Today's (Friday) training went even better than Wednesday's. The training works; sometimes I think why don't we do the training seven or eight times.

I am especially looking forward to the parents coming in a few weeks time. I love dancing for an audience; it feels as if you are standing on stage. We have to do the training six times; otherwise it's no fun. I hope that the training the training will be just as good as this past week.

#### WEEK 10

On Monday we did only performed half of the training. That always makes me tired; I have no idea why. Perhaps when we do the entire training I conserve my energy better. I am less tired when I do it six times.

Wednesday we did the entire training but instead of working towards our usual front we had to dance facing a different wall. We all started to laugh but our teacher explained that we had to learn to adjust at short notice. We were given a minute to think about our spacing and then we started. Everybody was so quiet. We had to keep alert so not to make mistakes. It was not easy, all the normal points of orientation were gone but it worked. This training was more tiring and I had less time to think about performing.

On Friday everything was back to normal. The training went well I was not tired at all; I felt as if I was giving a performance. I imagined I was dancing totally alone on a large stage. I can distribute my energy much better now. Instead of going full out from the very start I divide my energy over

the entire training and that works. When the training goes well am really pleased. That gives me so much energy that I feel that I can take on the entire world for the rest of the school year.

We have been working very hard this week preparing for the Parents Evening next Wednesday. I am really looking forward to showing my parents what I have learnt this year. We are going to dance in the large studio. That is great for the cardio training because you can really show how you can cover the space.

The control shuttle run will take place next week Thursday. I am both looking forward to it and at the same timing would rather not do it. I truly would like to know if my stamina has really improved but I also know how difficult it is and I don't want to feel as uncomfortable as I did during the last shuttle run.

## WEEK 11

This is a very special week. I will try to write an entry each day.

Monday: We danced the entire training today as if practicing for a real performance. On Wednesday we will be performing for our parents. Even though a lot of stamina is required we must not show it. The choreography must appear to look easy, which it certainly is not. Our teacher keeps pointing out, we must work as a group being aware of our spacing at all times. Everyone has to work together to make a successful performance.

During the rehearsal I really gave it everything I had. I feel that the cardio training has made me stronger. On Thursday, after the shuttle run, I will know how much stronger.

Wednesday: Today was a long day. First we had our normal academic classes, then ballet class and the performance in the evening. I felt a little nervous but became very excited when I saw the parents coming. It was great to show the training to our parents. In class today the training went well enough but in the evening it was fantastic. This was the very last training and to be honest I am disappointed. Of course there were times when I did not want to do the training but still I am sorry we are stopping. I will miss the energy and the challenge.

Thursday: this is the big day we all worked towards; the control shuttle run. I was a little nervous about the shuttle run because I knew what was going to happen. I was still tired from the previous evening. In the last shuttle run I reached level eleven. This time I hoped to reach, at least level, twelve.

Everyone was a little tired but we all gave as much we could. This time I was in the third group. I experienced this shuttle run very differently to the one in November. Today I just kept running but felt I had to stop at level eleven and a half. Not really a fantastic improvement. I had hoped for more but I noticed that while I was running I could distribute my energy much better and I felt much fitter and stronger at the end. I did not need much time to recover. That is so different to November when it took ages to recover.

Before the actual shuttle run we filled in the last questionnaire. There were many questions this time and had a long discussion about the cardio training. Everybody spoke very freely. It was interesting to hear what everyone had to say.

What did I achieve? I enjoyed taking part in this experiment because I feel that my stamina has improved. I am much more aware of my centre now and have become stronger in adagio. I know now how to effectively distribute my energy. I can jump higher and longer without becoming tired. I am enjoying allegro more and more. And I feel more determined because I know I can do what I set out to achieve.

The cardio training has been fun to do and I feel that it has worked for me. Despite the result of the shuttle run I know I have become stronger and that I have gained stamina both in class and in my daily life.

## ANALYSIS: CARDIO TRAINING AS A TOOL FOR ACTIVE LEARNING

Reading the dance student's diaries it becomes clear that the cardio training affected their daily life, their dance classes and their general well-being, influencing the way they feel; their joys and disappointments. How did the dancers feel about the demanding work entailed in the cardio vascular training? Was there a need to be challenged? How can a dancer achieve their potential? Which factors motivate the young dancer to achieve their goal? And how can the dancer be instrumental in his or her own progress? It is evident, from the entries in the diaries, that each and every dancer, in their own specific way, has undergone a process of physical and physiological development during the course of the cardio endurance training.

The diaries are all quite different, but several points appear in most of them. The most predominant issues addressed are:

- motivation
- self-esteem
- responsibility

In active learning the student takes a prominent role in the learning process. The dancer sets her own goals. Each goal successfully attained will help to build her self confidence and add to her self esteem. With the knowledge and skills gained from her training the dancer can tackle problems, makes her own decisions, choose strategies, think critically and takes a personal responsibility for her progress. Motivation is the driving force in the dancer's unrelenting search for perfection. Motivation will determine the path the dancer will set for herself. Today's dancer must be an independent, thinking and critical dancer. Cardio training gives the dancer opportunities to acquire skills which will help her to take an active role in her own development.

The following section explains, with the help of the dancer's own words, how cardio vascular endurance training can promote positive functioning and is an effective tool for active learning.

### MOTIVATION

A dance student has an intense desire to become a dancer. This inner desire determines her behavior and the goals she sets for herself. Motivation energizes and directs goal-oriented behavior. But what motivates the adolescent dancer?

**Knowledge and understanding:** It is important that the dancer understands why she is doing cardio training. Training for the sake of training is not sufficiently effective. Once the dancer understands that cardio training develops stamina so necessary for a healthy professional dancer, she is able to focus on her goals and act on those effectively. The student dancers understand that professional dancers need to have excellent endurance and wrote that they intend to achieve it. These dancers are motivated because they understand the purpose of the training and set goals because they know that *'later when I dance in works by different choreographers I will need to have sufficient cardio endurance'*.

**Challenge:** All dancers need to be confronted by continual and different types of challenges. The dancer's motivation is stimulated by different incentives, each of which gives her the opportunity of achievement and success. In the cardio vascular training experiment the teacher offered a

variety of challenges. Some were long term, some short term or just a special focus point for one day. The challenges could physical, artistic, musical or focus on presentation or group dynamics. The shuttle run held at the beginning and end of the training period was a great challenge. After hearing the result of the zero shuttle run the dancers were motivated to improve their cardio endurance. They had tangible proof of their achievement and worked towards an even higher level. They set a new goal for themselves and spoke about *'the big day they... worked towards'* Continually stimulating the physical challenge is essential. Young dancers want to be physically challenged. After an extra long training one of the dancers wrote, *'that was fun and challenging. It gives me extra spunk to keep going'*. Raising the dancer's expectations by announcing that the training will be more demanding the next day confronts the dancer with a new goal. The diaries show that expectation of what is to come is daunting as well as exciting. *'From next week, the dancer writes, 'we will be doing the training twice through each Monday, Wednesday and Friday. Twice through all the sequences and all that running is going to be quite a challenge. I know I will manage because I want to improve my endurance.'* This dancer anticipates and prepares herself for the coming challenge.

Change is always a new challenge. By rearranging the order of steps, adding new sequences, changing focus points and spacing dancers are kept alert and the training avoids becoming a routine. At one point the dancers trained in the biggest studio, the greater space physically forcing the dancers to move faster to cover more space in the same amount of time. Dancers love this type of challenge. Besides the sheer fun of moving so quickly, the dancers discovered new strengths since *'I have never moved so quickly before'*. Competition plays an activating role; the dancers set goals for themselves in relation to other dancers. Last but not least dancers are motivated by performance opportunities. Dancers look forward to performing for their parents to show them what they have achieved.

**Feeling improvement:** When the dancer actually senses change or feels that she is improving the dancer becomes more motivated to continue training and even to develop the quality of the training. Improvement leads to more enjoyment and as the dancer becomes stronger she revises her goals to make the training more challenging for herself.

Work and enjoyment go hand in hand. Cardio vascular endurance training is hard work but if the dancer is to stay motivated for a long period of time enjoyment is absolutely essential. By arranging challenging dance sequences, surprising the students with unexpected changes, giving positive feedback and integrating anticipatory factors cardio training becomes just as much fun to do as it is challenging.

Without doubt dancers all have a long term motivation but there is still a need to be challenged on a day to day basis. Cardio training offers many challenges which stimulate the adolescent dancer to actively set her own goals and work towards achieving them.

## **SELF-ESTEEM**

Cardio training develops the dancer's self-esteem. Buckroyd quotes Dickinson in saying that *'it is the challenge with success that builds self-esteem. (...)* This connection between self-esteem and achievement is quite crucial'.<sup>2</sup> Throughout the Dancer's Diary the dancer writes about her feelings, her joy and disappointments, her achievements, her confidence and how *'challenge with success builds self-esteem'*. She writes with great enthusiasm when things go right and that a *'great moment'* can give enough confidence and self-esteem to carry a dancer on for weeks. Confidence and self-esteem are not confined to the dance class; that wonderful elated feeling carries on into school work and daily life.

The cardio vascular training performed in this experiment is challenging; geared to prospective professional dancer. Dancers are given the space to investigate their own strengths. Both the zero shuttle run and the control run were enormous challenges. The dancer set herself the goal *'of doing my very best'* and was very proud that she completed the run with success. Her success was her reward as she wrote *'I finished the shuttle run; tough but I feel great'*. The dancer has achieved her goal discovering her strength and ability. Having discovered these qualities they will no doubt

have a positive effect on her functioning. Praise by both peers and teachers further acknowledge the dancer's achievement.

With each new physical demand the dancer is confronted with a new challenge. As the dancer accomplishes the challenge she discovers more about her own qualities and strength.

*'I surprised myself', a dancer wrote after she had completed the whole training for the first time, adding it 'gave me an enormous kick. I was totally exhausted but I felt great'. Having over won the challenge this dancer can have every confidence in her herself, knowing that she has and can accomplish the cardio training and many other challenges that will cross her path in the future. The demands made on her, her effort to achieve them and finally reaching her goal are building stones towards the dancers self respect so that the dancer can say with confidence, as many dancers wrote in their diaries, 'I know I can succeed'.*

Achieving success boosts the dancer's self-esteem and motivates the dancer to set new goals. Success does more; it contributes to the joy of working. After working really hard to improve her footwork the dancer felt herself succeeding. This new sensation, she writes, *'made me very happy'* and continues to say which new goals she is setting for herself. Likewise the dancer after having achieved a difficult movement writes *'today I was really in form. I moved as quickly as I could. I felt as if I had wings. It was a lovely feeling'*. The dancer's efforts have been rewarded. There can be no doubt; a challenge achieved with success develops self-confidence and greater self-esteem. Cardio-vascular endurance training offers a range of challenges giving dancers space to achieve and develop as the following dancer's words testify.

*'I finished the training right to the end. This made me feel really happy and gave me extra energy to do the next modern class. I am overjoyed and feel that I can take on the entire world for the rest of the school year. I do not think that the condition training only has to do with me improving my stamina. I gain willpower each new training.*

## **RESPONSIBILITY**

Cardiovascular endurance training stimulates dancers to make their own decisions and to trust their own judgments. Dancers are encouraged to take responsibility for their training. I use the word 'responsibility' here in a broad sense covering a wide range of aspects where it is the dancer, and not the teacher, who decides how to approach the cardio training.

Although integrated into the dance class, cardio training differs from normal classroom training. The dancers are expected to dance continuously for at least fifteen minutes. The mirror is not used as corrective tool. The dancers have little to no time to watch their movements in the mirror. The dancers, constantly changing positions and spacing, have to rely on their proprioception. There is no stopping in between the sequences. The teacher does not correct during the training; commands may be called from time to time but there is no feedback in the traditional sense of the word. Of course the teacher will inspire and stimulate the students but it is the dancer who will eventually determine which goals he or she wishes to achieve. It is the dancer who must inevitably take the responsibility for the quality of their cardio training.

Dancers need to learn how to solve the problems they encounter. Cardio training presents such problems. An often recurring problem is the dancer's breathlessness and inability to conserve energy. One of the young dancers, to give an example, noticed that she became breathless during the training. She concluded that she was breathing incorrectly and therefore *'paid special attention to my breathing'*. In the following training sessions she felt improvement. She kept focusing on her breathing and later in the year wrote, *'that the training no longer makes her tired. I have found quite a few moments where I can rest. I know how to achieve a lot without using too much effort so that I can spare my energy for the jumps. I have been concentrating on using my abdominals and pay extra attention to my breathing; that all helps to keep me going'*. This dancer has taken full responsibility to remedy the situation. After analyzing the problem she worked out and applied a solution following her own judgment. She has solved the problem without teacher intervention.

No doubt that in their further dance training, if similar circumstances present themselves, the dancer will be able to apply the knowledge and skills learnt during the cardio training.

During training dancers regularly discover skills that will help them improve her stamina as well as technique. With a certain amount of pride the dancer writes, *'I discovered something today; it is useful to count the music whilst jumping. Counting really works for me, it peps me up. I jump higher and have more air.'* The dancer, following her own judgment, has devised a simple but totally effective tool. Just as effective is the solution the dancer arranged for herself when her right shin was painful. Her reaction was both intelligent and independent. She decided to temporarily stop jumping and to focus on other aspects. The dancer had made a wise decision, but nevertheless was not totally satisfied, *'Without the jumping and running I do not feel I am really training, so I have decided to train on my mother's home trainer. This evening I cycled eight kilometers at top speed while watching television. That went really well. No shin problems at all. I'll do the same tomorrow and Sunday.'* The dancer has the situation totally in control. She has analyzed the situation and made her own decisions. She has independently found a way to continue cardio training whilst giving her injury the necessary rest.

By setting sharp and clearly defined goals the dancer knows where to concentrate her efforts. Goal setting can be very motivating as the dancer achieves her goal and self confidence develops. Dancers have one long term goal, that of becoming a dancer, but short term goals need to be reached before fulfilling that ultimate goal. The diary shows that the dancers are constantly setting targets for themselves. Which goals has the dancer set for herself? To improve endurance and technique, to have a stronger sense of determination, to compete successfully with her peers, to perform artistically and to demonstrate her newly acquired abilities during a performance.

Cardiovascular endurance training is demanding. The training stimulates dancers to take an active role in their development. The adolescents prove themselves capable of making their own decisions and trusting their own judgments. They recognize and solve problems, set goals and to take a responsibility for their own progress. The young dancers, both in word and deed, are instrumental in their own progress. Cardio training promotes an environment where active learning is encouraged.

## CONCLUSION

*'Active learning, and a sense of purpose and success, enhance pupils' enjoyment, interest, confidence and sense of personal worth'<sup>3</sup>*

Cardiovascular endurance training is an instrumental tool in dance training. Apart from its most obvious purpose, developing the dancer's stamina, cardiovascular training can also be beneficial in enhancing the dancers' enjoyment, promoting self-esteem and positive functioning. It is not only a physical training, but it also inspires dancers to take an active and responsible role in their own training.

Ten young dancers, who participated in a research project comparing sport orientated aerobic training and dance orientated aerobic training, were invited to keep a diary for the duration of that project. The collection and analysis of these ten diaries has provided the material for the present report.

The young dancers were asked to answer three questions on a weekly basis and were encouraged to write whatever else they wished. Some of the dancers wrote weekly, while others wrote from time to time leaving gaps of a week or two between entries. Others wrote extra entries on an irregular daily basis. All the dancers were very forthright in their remarks. Many offered personal information. Each diary is the dancers' personal journey through the various challenges brought about by the training. The dancers wrote about the good and difficult moments, about their joys but also about their disappointments. At the end evaluation all the dancers were happy to have done the cardio vascular endurance training.

The diaries are all quite different, but several points appear in most of them. The most predominant issues addressed were: motivation, self-esteem and responsibility.

**Motivation:** Motivation is the power on which dancers drive. Dancers have a strong inner motivation. But however strong their motivation, is it sufficient to keep the dancer going on a day to day basis for a long period of time? Cardio training is demanding and this study found that adolescent dancers need to be motivated. But what motivates the elite young dancer and which type of motivation is needed?

- *Knowledge and understanding:* the young dancer must know why she is doing the cardio training. When the benefits of the training are understood the dancer has a clear sense of purpose and able to set goals

- *Challenge:* It is essential that dancers are given continual and varying challenges. Challenge stimulates dancers to set goals. The shuttle run is especially challenging. After the zero shuttle run dancers are motivated to improve their level of endurance. Making the training physically more demanding or extending the length of the training triggers the dancer's motivation. Likewise by highlighting a specific aspect of the training the dancer's motivation is boosted and dancing for an audience, be it teachers, peers or parents add extra incentive. Performing, competition and team work are equally forceful motivating factors.

- *Feeling improvement:* The dancer needs to feel progress. Realistic and positive feedback from teachers and peers is essential but equally important is that she feels that her endurance and her dancing are actually improving.

- *Enjoyment:* A vital element to retain and promote motivation is enjoyment. The cardio training, however demanding, must be fun to do. Training is fun when the dancer feels improvement, when new challenges are offered, when positive feedback is given, when goals are reached and when looking forward to particular events like the test classes and the presentation for the parents. Anticipation is exciting. Anticipation fosters motivation.

Motivation is essential if cardiovascular training is to have the desired effect. The young dancers need to be motivated. Acknowledging motivation enables the dancer to work towards her goal with a sense of purpose, confidence and self-awareness.

**Self-Esteem:** Accomplishment leads to self-esteem. Challenge is inherent to cardiovascular training. The Dancer's Diary illustrates many moments where the dancer having accomplished a challenge, *'feels great'*. The dancer writes with considerable enthusiasm when a challenge has been achieved. These 'great moments' are very important and gives the dancer confidence and self-assurance to thrive on for weeks. Noteworthy is that this feeling is by no means confined to the dance studio. That feeling of accomplishment discovered in the dance studio manifests itself in dancer's academic school studies and in daily life.

By the very nature of the cardio training the teacher takes a guiding, encouraging role. It is therefore evident that the accomplishments that a dancer achieves during cardio training are especially positive because, more than in traditional training, it is the dancer who has decided to embrace the challenge and make it work. When the dancer writes *'I know I am improving my stamina and that's exactly what I want to do'* you can sense her pride and feeling of fulfilment as she achieves her goal.

**Responsibility:** Cardiovascular training is different to a normal dance class. During cardio training the dancers dance non-stop for at least fifteen minutes with the teacher encouraging instead of teaching in the traditional sense. It is the dancer who must take the responsibility for the quality of their training. The greater the dancer's motivation and sense of purpose, the better will be the result of the training.

Cardio training confronts the dancers with problems and encourages them to recognize them, analyze them and look for solutions. Teacher offer guidance but more often the dancer discovers that she is capable of analysing the problem, experimenting with possible solutions and following the whole process to a successful end. The dancer sets her own clearly defined short and long term targets making her own decisions and trusting her own judgment. The dancer herself is an integral part of the learning process applying the both the teacher's instructions and her own decisions in a responsible and intelligent way.

## **CARDIO TRAINING AS AN EFFECTIVE TOOL FOR ACTIVE LEARNING**

The structure and methodology of cardio training is student orientated. The student learns through experience and is strongly involved in the learning process. Cardiovascular endurance compels dancers to think, decide and too act on their own decisions. The dancers are encouraged to set their own goals and to follow them through. Dancers are stimulated to reach these goals which they understand are vital to their ultimate aim; to become a dancer. As each problem is solved the dancers not only gains more self-confidence but also internalizes the information gained and makes it her own. The information becomes part of the dancer's internal knowledge ready to be used when needed. With each new achievement the dancer develops, gaining self-awareness and self-esteem. With each challenge won the dancer gains in confidence, able to take on the responsibilities facing the prospective professional dancer.

The dancer's own words leave no doubt that cardio vascular endurance training promotes an atmosphere where active learning is stimulated and where dancers are challenged to take an active part in their own learning process.



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## Notes

<sup>1</sup> Cardiovascular Endurance training for young dancers, a comparison. Final report. By Yvonne Beumkes. Rotterdam: lectoraat Excellence and well-being in the performing arts, April 2007.

<sup>2</sup> Julia Buckroyd, *The Student Dancer. Emotional Aspects of the Teaching and Learning of Dance*. London: Dance Books, 2000, pp. 73

<sup>3</sup> *The Student Dancer* pp.73