

Student 3: Low Merit

NZQA Intended for teacher use only

Physical activity outcome – to complete a triathlon 300m swim, 10km cycle and 3 km run in 48 mins

Strategy: Continuous training

I have selected continuous training as my first strategy. The reason why I have selected continuous training is I need to work on my aerobic base for all 3 disciplines (swim, bike and run) as I have no experience in triathlon particularly the swim and bike disciplines. I will need to consider each of the disciplines, frequency, duration and intensity as these are all important factors of continuous training. Frequency is key if I intend to gain any benefits from continuous training. The benefits being the development of the aerobic and anaerobic energy systems. This will be important in my triathlon training because (see appendix 2). I intend to start at least 3 sessions per week and slowly build up to at least 6 sessions. I will need to balance all 3 disciplines Continuous training involves working for a prolonged period of time (over 20 minutes) with no rest periods, at a steady intensity level. In order to achieve developing my aerobic base I need to start with at least 20 mins and build up to longer distances slowly. This will ensure the heart and blood vessels will supply oxygen required to my working muscles over the triathlon training. This means (see appendix 3). Based on my research, I can see intensity will be the most important factor of my continuous training at the early stages of developing my aerobic base as the intensity needs to match my fitness level and then I will be able to make adjustments to my workload accordingly. This is due to your heart rate being directly related to exercise intensity and to oxygen consumption. From taking my heart rate I should be able to determine whether the pace will be too slow or too fast. Examples of how I intend to use frequency, duration and intensity for the 3 disciplines of the swim, bike and run can be seen in the highlighted sections of the attached programme(see appendix 1). This will also help me to build cardiovascular and muscular endurance. These components of fitness are both important for completing the triathlon because (see appendix 3). Therefore when I apply this method of training to my triathlon programme, I would expect ... For example,(see appendix 1).

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This strategy of continuous training also will help me towards my physical activity outcome (triathlon) because I have estimated the duration of the triathlon will take me approx. 48 minutes to complete. I intend to finish the 300m swim in 8mins, the bike in 22mins and the run in 18 mins. I have estimated these based on the in class trials (see appendix 1).

Trialling and Adjusting

After completing the first 3 weeks of my training programme I think continuous training has been working effectively for me. I have noticed it is getting easier for me to complete each training session, especially the sessions which go for longer (time and distance). For example, in my last few training sessions (12/8, 14/8, 15/8 and 17/8) my training heart rates had plateaued (see reflection logs). I have seen improvements in my biking and running times. For example, I can now run 3 km in ... This shows that (see reflection log).

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For the next 3 weeks I will make some adjustments to my continuous training sessions. I will need to increase the intensity of my continuous training sessions to be able to achieve my triathlon outcome of 48mins. For example, ... I think this will allow me to... (see reflection log).

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Strategy: Interval It will be important for me to include some interval training sessions in my training programme because this is another great way to improve cardiovascular endurance, this is an important component of fitness for the Triathlon. Interval training involves training using work and rest periods, for example, working for 30 seconds at a high intensity (90-100% MHR) then having a rest period (30-60% MHR). I will use interval by having longer work periods (1 min) at an intensity of 60- 80% MHR and shorter rest period (15 seconds), working at this intensity and having shorter rest periods are important because I will want my aerobic system (the main energy system for triathlon) to be stressed and this will help me to build my endurance. This will allow my body to make metabolic adjustments, which will increase aerobic capacity. During the high intensity period, due to the amount of stress you are putting on your body, your body can no longer provide enough oxygen to carry out aerobic respiration. We will start to use our anaerobic system which also produces lactic acid, which is why we cannot physically stay at this intensity for any more that 30 seconds to a minute, because this lactic acid causes our muscles to break down and fatigue. We will then go into the rest period of the training, where your aerobic system kicks back in. Your aerobic energy system must work extra hard to refuel the muscles with oxygen and break down the lactic acid accumulated. During this aerobic stage you will build stamina and cardiovascular endurance.

In order for the methods of training to be effective, I will also include the following principles of training.

Strategy: Intensity Making sure I will work at the correct intensity (60- 90% MHR) in each of my training sessions is crucial. For the physiological systems to make adaptations they will need to be put under stress, If you don't push your body enough you won't notice significant improvements. Intensity will be important for interval training because when using interval training the work period we should be aiming for is within our anaerobic threshold (90–100% MHR), this will allow us to stress our anaerobic system. It will also allow the body to make metabolic adjustments which will increase the body's aerobic capacity. Knowing your target zones in training will help you to know if you are working at the right intensity. There are differing views from my reading about what intensities you should train at. For example, ... This means for my triathlon training... (see appendix 1) In continuous workouts, I will look to work at about 60-80% of my maximum heart rate (125.4-167.2 BPM). In my interval trainings in the work periods I will aim to work at around 90-100% MHR (188-209 BPM) and during the rest period at about 30-60%.

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Trialling and Adjusting

After completing the first 3 weeks of the training programme, I still need to monitor my intensity if I am to improve my triathlon time as I forget to take my training heart rate. ...

For the rest of my training sessions. I need to make sure I wear a heart rate monitor to help me to better monitor my heart rate and which training zone I am working in, this will make the sessions more effective as I am able to target a specific training zone and energy system. Because I feel like I have developed a good endurance base I will also be focusing on working at a higher intensity, this will help me to build speed and therefore improve my overall time for the final triathlon. ...

Overload: The principle of overload means gradually adding stress to your training sessions and continually working harder as the body adapts to the current intensity of the training sessions. To improve cardiovascular and muscular endurance it is important to work for longer periods of time, increasing the duration as the body adapts is important to keep making improvements. Training is all about stressing the bodies systems (muscular, cardiovascular, respiratory) to a stage where they need to make changes to adapt to this stress. This is supported by research which states... This means... (see appendix 5). In my training programme, I will start at a low intensity level (for example refer to training programme week 1) because it is my first time training for or completing a triathlon. I asked my friends' father who competes in triathlons how I will apply overload in my programme so I will be able to successfully progress into the full triathlon distance. For example, for the swim... for the bike... and for the run (refer to the highlighted section in my intended training programme). This programme shows how I will start off by working on each discipline (swim, cycle and run) of the triathlon separately (e.g. Monday go for a 2km run and Tuesday swim 300m (which can be seen in the orange highlighted section in appendix one). From here, I will plan to run and swim further distances with the intention of improving my original times on running and swimming. For example, (see appendix 1). If improvements are not happening this will mean that I am not applying my strategy as intended and will need to revisit frequencies, durations and intensities.

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Trialling and Adjusting

After completing the first 3 weeks of my training programme I think I have been overloading my body by gradually increasing the intensity and duration of my training sessions. I know this because I am starting to feel fitter, my heart rate doesn't increase so much so quickly and my recovery time is improving. I am trying not to increase these too much so that I avoid injury and fatigue. An example of this is in week 1, my 3 runs were 2km, week 2 was 2.5km and week 3 was 3km. I made sure to time how long each run took to complete so I was able to use this as a start point to build on. This will allow me to continue overloading by either increasing the distance I run or trying to beat my time.

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In last 3 weeks of the programme, I don't really want to increase the distance too much as the run in the triathlon is only 3km as I had intended from my original training programme. Instead I will work on improving my time for the 3km run and include some sessions which include biking and running. This will help me to improve my overall time for the final triathlon and also get my body used to the transitions between each of the stages. Because my longest bike distance in the first 3 weeks was 10km I will be working on increasing the distance to 15km. The reason for this I have joined my friends' dads Sunday group rides. They do a minimum of 20km. This will help my endurance by overloading beyond the cycle distance of the triathlon.

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