Appendix 1: Comparison of exercises undertaken by the traditional gym based exercise group (TGB) and the exergaming (IREX™) group.

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| Games | TGB | IREX™ | Movements required |
| Volleyball | Stand up straight with knees slightly bend and your feet shoulder width apart. Clasp both hands in front of your abdomen and slowly raise both arms to the front until eye level, and lower both arms. Repeat three times.Following this, stand comfortably with both arms by your side. Raise the right arm away from your body until shoulder level and then lower it down again to your side. Repeat with the left arm. Following this, move two steps to the right and repeat the movement of the arms; repeat with movement to the left. | Land the ball in your opponent’s court or outside your court. Either move your body, shoulder or touch the volleyball by hand. Smoother movements allow better contact with the ball.  | Full medial and lateral weight shifting. Vertical stretches, moving the upper extremities and whole body movement. |
| Sharkbait | Stand up straight with knees slightly bent and your feet at a comfortable width apart. Stretch out both arms so that they form a T with your body and slowly bend your knees to a comfortable position. Keep your back straight, while in this position, transfer your weight to the right leg and reach out to the right side with your upper torso and right arm as much as you can. Hold for 2 seconds and gently move your position back as you were before you reached to the right. Repeat with the left side. | You will see yourself virtually deep-sea diving with sea creatures. Catch as many stars as you can. Lean side-by-side, crouch down or raising your arms. To move sideways quickly, step to the side. If you meet a shark, it will virtually swallow you and expel you out of its mouth. Contact with an electric eel virtually temporarily disables your movement. | Full medial and lateral weight shifting of the centre of gravity body movement with bending and stretching. |
| Formula racing | Stand up straight with knees slightly bent and your feet shoulder width apart. Gently hold both hands in front of your torso with both elbows bent. Look straight ahead while maintaining a relaxed stance, and gently turn your body to the right and back to original position, then to the left and back to original position. Repeat this time with your arms extended. | You will see yourself virtually driving in a Grand Prix. The course of the track is also visible to you. Drive through the racecourse as best as you can. Steer by stepping to the right or left, by moving your body to the side, or by moving one arm at a time. If you feel that you have not moved on the track, take one small step to the side to move your car. | Full medial and lateral weight shifting of the centre of gravity body movement by bending and stretching. Left and right trunk movements and movement of the upper torso.  |
| Snowboard | Stand up straight with your feet shoulder width apart. Place your hands in front of your body as if to hold an imaginary ball and look straight ahead. Move your pelvis to the front (towards your hands) and hold for 2 to 3 seconds, and to the back. Re-peat as many times as you can. Next stand upright and take a comfortable step forward with your right foot (almost into a lunge position). Rest your hands on your hips and gently tilt your body to the right and back to where you started.Repeat this by standing upright again, this time with a step forward with your left foot, resting your hands on your hips and gently tilting your body to the left, and back to where you started. Try to keep your upper body upright and your back as straight as possible. | You will see a red silhouette of yourself standing on a snowboard, coming down a narrow slope, and a virtual image of yourself when you cross the finish line. Begin by stepping sideways until you are centred over the snowboard. Make as many jumps as possible and avoid hitting other objects. Lean to either side, or move your arm to one side. | Full medial and lateral weight shifting of the centre of gravity body. Vertical movements, pelvic tilt and movement for hamstrings. |
| Birds and balls | Stand up straight with your feet shoulder width apart. Place both arms at your sides. Beginning with the right arm: slowly move your right arm upwards until shoulder level and gently open and close your right hand (this involves movement of the thumb, fingers and palm). Repeat with your left arm. As you progress through the sessions, use both arms at diﬀerent positions (e.g. to the top of your head, stretching to the top left or right). | You will virtually be in a pastoral background with colourful balls coming at you. Touch the balls with any part of your body e.g. once you have exercised with your right shoulder or arm, you may repeat it with the left.  | Anterior and medial-lateral weight shifting of the centre of gravity over base of support. Shoulder rotation and flexion and movement of the upper extremities |