

APPENDIX 1.0

INFORMED CONSENT FORM

Date:

Title of the Project - Effect of Yoga on Health-Related Physical Fitness and Psycho-Motor abilities in Intellectually Disabled Children

Investigator - Vishvanath Namdev Pise

Name of the Guides - Dr. Balaram Pradhan, Dr. Manmath Gharote

Name of the Participant

About the Project

This study deals with Effect of Yoga on Health-Related Physical Fitness and Psycho motor abilities in Intellectually Disabled Children. All Information obtained during the study will be kept Confidential and individual report of the test will be given.

1 Your ward can withdraw from the study at any point of the time unconditionally.

2 In case the Study does cause any adverse effects, the institution is not liable.

I hereby have understood the above and consent voluntarily to participate my ward in the study.

Signature of Parent

APPENDIX 2.0

INSTITUTIONAL ETHICAL COMMITTEE APPROVAL



स्वामी विवेकानन्द योग-अनुसन्धान-संस्थानम् Swami Vivekananda Yoga Anusandhāna Samsthānam

(Declared as Deemed-to-be University under Section 3 of the UGC Act, 1956)

Ekmath Bhavan, # 19, Garvapuram Circle, Kempegowda Nagar, Bangalore - 560 019

Ph: 080 - 2661 2660, Telefax: 080 - 2660 8645

E-mail: svyasa@svyasa.edu.in Website: www.svyasa.edu.in

RES/IEC-SVYASA/80/2016

May 4, 2016

To,
Dr. Balaram Pradhan
Assistant Professor,
S-VYASA University,
Bangalore.

Reference:

"Effect of Yoga on Health Related Physical Fitness and Psycho-Motor Abilities in Children with Intellectually Disabled". - Committee Approval of the above mentioned study.

Dear Dr. Balaram Pradhan,

We have received from you the following study related documents vide your letter dated December 20, 2015

1	Project Proposal
2	Informed consent form

Ethics committee meeting was held on January 23, 2016 at 2:00 PM to 5:00 PM at Ekmath Bhavan, Bangalore. Above documents were examined and discussed in the meeting. After due consideration, the committee has decided to approve conducting the aforementioned study.





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Ph: 080 - 2561 2663, Telex: 080 - 2600 8645

E-mail: svyasa@svyasa.edu.in Website: www.svyasa.edu.in

This is to confirm that neither Dr. Balaram Pradhan nor any staff participating in this study were involved in the voting procedures and decision making.

The Institutional Review Board / Independent Ethics Committee (IEC) are expected to be informed about the progress of the study / any changes in the protocol and patient information / informed consent. The investigators are also expected to submit a copy of the final report to IEC for records.

This approval is valid up to the completion of the study at the site.

Please submit to the IEC, the status report of the study as per the SOPs.

The IEC is organized & operates according to the requirements of ICH-GCP, Indian Council of Medical Research Guidelines & Schedule Y.

Best Wishes,

Subramanya P.

Dr. Subramanya P,
Member Secretary,
Institutional Ethics Committee,
S-VYASA, Bangalore.

APPENDIX 3.0

PLAGIARISM CHECK CERTIFICATE



Urkund Analysis Result

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Submitted By: plagiarismcheck@svyasa.edu.in
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Sources included in the report:

Chapter_II.pdf (D37432775)
1-5-Chapter final 4 print (logeswar).docx (D37805238)
Vijaya Full Thesis-rev.doc (D41444247)
https://www.researchgate.net/publication/20359892_The_integrated_approach_of_yoga_A_therapeutic_tool_for_mentally_retarded_children_A_one_year_controlled_study
<https://iiste.org/Journals/index.php/RHSS/article/download/32717/33608>
<https://www.sciencedirect.com/science/article/pii/S0891422211004161>
https://www.researchgate.net/publication/329407058_Development_and_validation_of_a_yoga_module_for_children_with_visual_impairment_A_feasibility_study
https://www.researchgate.net/publication/234651817_Yoga_as_an_intervention_for_children_with_attention_problems
https://www.researchgate.net/publication/14862375_Improvement_in_static_motor_performance_following_yogic_training_of_school_children
f64a67d7-9ef2-48a2-8a4a-8d2b64858dc1
063b029f-ed47-4fff-b960-00be7935a744

Instances where selected sources appear:

20

APPENDIX 4.0

PERMISSION LETTER FROM KAMAYANI SCHOOL FOR INTELLECTUAL DISABLED CHILDREN



KAMAYANI PRASHIKSHAN & SANSHODHAN SOCIETY

Regd. Off.: "KAMAYANI" C.T.S. No. 3024/11, Plot No. 270/B, Gokhale Nagar, Pune 16.

Phone : 25651588, 25673529

Email : office@kamayanischool.org

Website : www.kamayanischool.org

(Registered under the Societies Registration Act, XXI of 1860 & Bombay Public Trust Act XXIX of 1950)

R.NO MAH 492

F-307

Ref. No. KS/152/2018-19

Date – 26/02/2019

TO WHOMSOEVER IT MAY CONCERN

This is to inform that Shri. Vishvanath N. Pise, Student of Swami Vivekananda Yoga Anusandhana Samsthana, Bengaluru, is doing his Ph.D work on topic **"Effect of Yoga on Health Related Physical Fitness and Psycho-Motor Ability in Children with Intellectually Disabled."**

For this purpose, we are giving him permission to conduct experiment on our school students.

From 4th July 2016 to 7th Oct. 2016


MR. NARAYAN P. SHINDE
PSYCHOLOGIST


Mrs. Sujata G. Ambe
Principal
Kamayani School For Mentally Handicapped
270/B, Gokhale Nagar, Pune 16.

APPENDIX 5.0

PERMISSION LETTER FROM SAI SANSKAR SCHOOL



Regd. No. : Maharashtra1144756/Pune

SAI SANSKAR SANSTHA

Plot No. GP - 124, Near Archilla Garden, "G" Block, MDC, Sambhaj Nagar,
Chinchwad, Pune- 411 019. Phone No. : (020) 84107853.

Ref. No. :

Date :

जा. ३६४३/२०१८-२०१९

दि. ०६/०३/२०१९

TO WHOMSOEVER IT MAY CONCERN

This is to inform that Shri. Vishvanath.N.Pise. Student of Swami Vivekananda Yoga Anusandhana Samsthana, Bengaluru, is doing his Ph.D work on topic "Effect of Yoga on Health Related Physical Fitness and Psycho-Motor Ability in Children with Intellectually Disabled."

For this purpose, we are giving him permission to conduct experiment on our school students.

From 4th July 2016 to 7th Oct.2016

श्रीमती. सुप्रभा सखत

(निदेशिका)

साई संस्कार संस्था
पॉस्ट नं. GP-124, सीला गार्डन रोडवरी,
पी-बॉक्स, एन.एम.डी.सी.,
चिंचवडनगर, चिंचवड, पुणे-411 019.,
फोन नं.: 020-84107853

APPENDIX 6.0


Traditional Yoga References


Practice name	Ref from Ancient texts	Meaning
आसन Āsana	कुर्यात्तदासनं स्थैर्यमारोग्यं चाङ्गलाघवम् ॥ ह यो प्र १/१७ <i>kuryāttadāsanam sthairyamārogyam cāṅgalāghavam</i> ॥ <i>ha yo pra 1/17</i>	Brings lightness and steadiness of body and mind, i.e. health
वज्रासन Vajrāsana	जङ्घाम्यां वज्रवत्कृत्वा गुदपार्श्वे पदावृभो । वजासनं भवेदेतद्योगिनां सिद्धिदायकम् ॥ घे सं २/१२ <i>jaṅghāmyāṁ vajravatkṛtvā gudapārśve padāvṛbho</i> <i>vajāsanam bhavedetadyogināṁ sidghidāyakam</i> ॥ <i>ghe saṁ 2/12</i>	Make the thigh tight like adamant and place the feet beside the behind. This is <i>vajrāsana</i> it brings the Yogi subtle abilities.
पश्चिमतानासन . जानु Paścimatānāsana/ Janushirasana	उदयं जठरानलस्य कुर्यादुदरे कार्श्यमारोगतां च पुंसाम् ॥ ह यो प्र १/२९ <i>udayam jaṭharānalasya uryādudare kāśyamarogatāṁ ca puṁsām</i> ॥ <i>ha y p 1/29</i>	Kindles the gastric fire, reduces belly fat giving aspirants better health.
मत्स्येन्द्रासन Matsyendrāsana/ वक्रासन Vakrāsana	मत्स्येन्द्रपीठं जठरप्रदीप्तं प्रचंडरुग्मंडलखंडनास्त्रम् ॥ ह यो प्र १/२७ <i>matsyendrapīṭham jaṭharapradīptam</i> <i>pracandaruḡmaṇḍalakhāṇḍanāstram</i> ॥ <i>ha yo pra 1/27</i>	Increases the digestive fire to such an incredible capacity that it is the means of removing diseases.
भुजङ्गासनम् Bhujāṅgāsanaṁ	देदाम्निर्वद्धते नित्यं सर्वरोगविनासनम् । जागर्ति भुजगी देवी भुजगासनसधनात् ॥ घे सं २/४३ <i>dedāgnirvardghate nityam sarvarogavināsanam</i> <i>jāgarti bhujagī devī bhujagāsanasadhanāt</i> ॥ <i>ghe saṁ 2/43</i>	Increases bodily heat, destroys all diseases.
शलभासन Śalabhāsana	अध्यास्यः शेते करयुग्मं वक्षेभूमिवष्टभ्य करयोस्तलाभ्याम् । पादौ च शून्ये च वितस्ति चोर्ध्वं वदन्ति पीठं शमभं मुनीन्द्रः ॥ घे सं २/३९ <i>adhyāsyaḥ śete karayugmaṁ vakṣebhūmivaṣṭabhya</i> <i>karayostalābhyām</i> <i>pādau ca śūnye ca vitasti cordhvaṁ vadanti pīṭham</i> <i>śamabham munīndraḥ</i> ॥ <i>ghe saṁ 2/39</i>	Lie on the ground face downwards; place the two hands on the ground with palms upwards, raise the legs in the air 50 cm high. This is the Locust posture.
धनुरासन Dhanurāsana	पादांगुष्ठौ तु पाणिभ्यां गृहीत्वा श्रवणावधि । धनुराकर्षणं कुर्याद्धनुरासनमुच्यते ॥ ह यो प्र १/२५	Holding the toes with the hands, pull them up to the


	<i>pādānguṣṭhau tu pāṇibhyāṃ gṛhītṵ śravaṇāvadhī dhanurākaraṣaṇaṃ kuryādghānūrāsanaṃ mucyate ha yo pra 1/25</i>	ears as if drawing a bow. This is the <i>dhanurāsana</i> .
मकरासन Makarāsana	शिरश्च ध्रुत्वा करदण्डयुग्मेदेहाग्निकारं मकरासनं तत् ॥ घे सं २/४० <i>śiraśca dhutvā karadaṇḍayugmedehāgnikāraṃ makarāsanaṃ tat ghe saṃ 2/40</i>	Increases bodily heat.
विपरीतकरनी Viparītakaraṇī	नित्यमभ्यासयुक्तस्य जठराग्निविवर्धिनी ॥ ह यो प्र ३/८० <i>nityamabhyāsayuktasya jaṭharāgnivivardhinī ha yo pra 3/80</i>	This practice increases the gastric heat of a regular practitioner.
श्वासन Śavāsana	श्वासनं श्रान्तिहरं चत्तविश्रान्तिकारकम् ॥ ह यो प्र १/३२ <i>śavāsanaṃ śrāntiharāṃ citta viśrāntikāraṃ ha yo pra 1/32</i>	wards off fatigue and brings mental repose.
प्राणायाम prāṇāyāma	प्राणायामेन युक्तेन सर्वरोगक्षयो भवेत् ॥ ह यो प्र २/१६ <i>prāṇāyāmena yuktēna sarvarogakṣayo bhavet ha yo pra 2/16</i>	By proper practice of <i>prāṇāyāma</i> all diseases are annihilated.
नाडीशोधन Nāḍīśodhana	शुद्धा नाडिगणा भवन्ति यमिनां मासत्रयादुर्ध्वतः ॥ ह यो प्र २/१० <i>śudhā nāḍigaṇā bhavanti yamināṃ māsatrayādurdhvataḥ ha yo pra 2/10</i>	Purifies all <i>nāḍi</i> within three months.
भ्रामरी bhrāmārī	चित्ते जाता काचिदानन्दलीला ॥ ह यो प्र २/६८ <i>citte jāta kācidānandalīlā ha yo pra 2/68</i>	indescribable blissful experience fills the mind.



APPENDIX 7.0



METHODS OF PRACTICES FOR THE YOGA PROGRAMME


Standard procedure	Difficulty faced	Solutions	Days taken to achieve	Photo
<p><i>Hand rotation to front and back</i></p> <ul style="list-style-type: none"> • While inhaling, keep the legs apart and raise both the hands. Rotate arms forward without bending the elbows. • Repeat it for nearly 10 to 15 rounds. • The same rotating backwards. 	<p>Unable to move hands in 360 degree, elbows are bending</p>	<p>Giving instruction and helping to make elbow erect</p>	<p>Able to achieve a correct posture in 2/3 days</p>	



<p><i>Twisting</i></p> <ul style="list-style-type: none"> • Spread the legs apart. • While inhaling raise the hands sideways parallel to the ground. • Twist to the right, keep the right hand straight. Look at the tip of the fingers. • Bend the left hand at the elbow to bring the hand close to the chest. • Repeat the same on the left. • Repeat it for nearly 10 to 15 rounds. 	<p>Unable to turn and balance on legs.</p>	<p>Stepwise and slow movements were given to achieve the final position.</p>	<p>Able to perform a correct posture after 3/4 days of practice.</p>	 <p>The image shows a woman in a pink tunic and dark pants performing a standing twist yoga pose. She is standing on a striped mat, with her feet apart. Her right arm is extended straight out to the side, and her left arm is bent at the elbow with her hand near her chest. Her torso is twisted to the right, and she is looking towards the tip of her right hand. The background shows an indoor setting with a white door and a blue wall.</p>
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<p><i>Side Arch hand right & left</i></p> <ul style="list-style-type: none"> • Stand with distance of 10 cm between two feet apart, turn right, and raise a hand to make an arch of the body. • The same arch towards the left side. • Repeat it for nearly 10 to 15 rounds. 	<p>Facing problem to turn side and balance on legs</p>	<p>Taking practice step-wise. Slow practice asking to take hands up and down.</p>	<p>3/4 days taken for correction</p>	
<p><i>Forward & backward bending</i></p> <ul style="list-style-type: none"> • Stretch the arms straight above the head with the palms facing forward. • Inhale and bend backward with stretched arm above the head. • Exhale and bend forward. • Repeat it for nearly 10 to 15 rounds. 	<p>Bending knees and sometimes not able to balance</p>	<p>Asking to put hands on the waist and bending forward and backward later with hands up and down</p>	<p>2/3 days taken for correction</p>	


<p>Side Bending</p> <ul style="list-style-type: none"> • While inhaling, keep the legs apart. • While exhaling, bend laterally to left and right. (Do not bend forward or backward) • Repeat it for nearly 10 to 15 rounds. 	<p>Instead of side bending, children bend front and back.</p>	<p>Asking to put hands on the waist and showing demo of how to bend to particular side</p>	<p>2/3 days taken for correction</p>	
<p>ASANA STANDING</p>				
<p>Ardhakaöi Cakräsana</p> <ul style="list-style-type: none"> • While inhaling, slowly raise the right arm sideways up until the biceps touch the right ear, keep the palm facing the left side. • Stretch the right arm upwards. • While exhaling, bend the trunk slowly to the left and maintain it steady. 	<p>When bending a side, children lean forward instead of a partially side</p>	<p>Asking to put hands on waist and showing demo on how to bend to a particular side</p>	<p>2/3 days taken for correction</p>	



<ul style="list-style-type: none"> • Repeat this on the left side by bending towards the right side. 				
<p><i>Ardha Cakrāsana</i></p> <ul style="list-style-type: none"> • Palms on the waist, fingers pointing forward. • Inhale and bend backwards from the lumber region. Drop the head backwards and maintain with normal breathing. 	<p>Unable to balance on legs</p>	<p>Asking to put hands on the waist and bending backward for a couple of times.</p>	<p>2/3 days taken for correction</p>	
<p><i>Pādahasthāsana</i></p> <ul style="list-style-type: none"> • Stand erect with legs close to each other. • Inhale and raise the arm upwards until the biceps touch the ears. • Exhale and bend forward until the entire palm rests on the 	<p>Bending knees and sometime not able to balance.</p>	<p>Asking to put hand on west and bend forward then hand down</p>	<p>2/3 days taken for correction</p>	



<ul style="list-style-type: none"> • Ground and the chin touch the knees. • 				
<p><i>Trikonāsana</i></p> <ul style="list-style-type: none"> • Keep one-meter distance between both the legs. Raise both the hands horizontally. • While exhaling, bring the right hand down to the ground to the outside of the left foot. • Left arm is raised up to a vertical position. Turn the face and look up. 	<p>Bending knees and sometimes shifting weight one side.</p>	<p>Asking to keep hands in 180 degree and bends forward then hands touching to toes</p>	<p>3/4 days taken for correction</p>	



<p><i>Tāḍāsana</i></p> <ul style="list-style-type: none"> • Stand keeping the legs 10 cms apart and arms by the sides. • Raise the arms above the head. • Inhale and stretch the arms and chest upwards. • Raise the heels to come up on the toes and open fingers. • Hold the body position for a few seconds. 	<p>Unable to balance on toes</p>	<p>Asking to take support and come on toes.</p>	<p>2/3 days taken for correction</p>	
<p><i>Adhomukha Svānāsana</i></p> <p>The preparatory position is with the hands and knees on the floor,</p> <ul style="list-style-type: none"> • The hips are pushed towards the ceiling, the body forms an inverted V-shape. 	<p>Unable to hold body on hands.</p>	<p>Asking to bend knees a few times then lifting the body on hands slowly</p>	<p>3/4 days taken for correction</p>	



<ul style="list-style-type: none"> • The legs are straight with the heels reaching the floor. • Try to reach head towards the ground & breathe normally. 				
SITTING-ASANA				
<p><i>Vajrāsana</i></p> <ul style="list-style-type: none"> • Sit erect comfortably with buttocks resting on both the heels and palms resting on the thighs. 	Pain in knees and ankle joints	Giving support with a pillow	2/3 days taken for correction	
<p><i>Jānu Sirāsana</i></p> <ul style="list-style-type: none"> • Sit in <i>Dandasana</i>. Legs to the front. • Fold the right leg and keep it on the root of the left thigh. • With exhaling bend forward hold the left foot with both the hands. 	Bending knees when bend forward.	Helping to hold knees and asking not to bend knees	2/3 days taken for correction	



<ul style="list-style-type: none"> • Repeat with other leg too. 				
<p><i>Uñörüsana</i></p> <ul style="list-style-type: none"> • Stand on the knees. • Inhale and bend the trunk backwards and place the palms on the heels. • Maintain the posture with normal breathing 	<p>Not possible to stand on knees. Unable to touch heal.</p>	<p>Support with a pillow under the knees</p>	<p>3/4 days taken for correction</p>	
<p><i>Vakrüsana</i></p> <ul style="list-style-type: none"> • Bend the right knee and place it beside the left knee. • Straight and twist the waist towards right. • Bring the left arm around the right knee and hold a big toe. • Take the right arm back and keep on the ground. 	<p>Putting weight on hands and shifting body back</p>	<p>With support, making back erect</p>	<p>3/4 days taken for correction</p>	



<ul style="list-style-type: none"> Practice with right side too. 				
<p>SUPINE-ASANA</p>				
<p><i>Viparitakarëe</i></p> <ul style="list-style-type: none"> Lie down in a supine position. Inhale and raise the leg up to 90⁰, and then raise the buttocks and trunk without lifting the head. Elbows on the ground and support the back with both palms. Raise the legs vertically. 	<p>Unable to lift legs upwards, Also, not possible to hold position</p>	<p>Taking support with a wall and helping to hold the body on shoulders.</p>	<p>4/5 days taken for correction</p>	



<p><i>Halāsana</i></p> <ul style="list-style-type: none"> • Lie down in supine position. Inhale, raise the leg up to 90⁰, and then raise the buttocks, and trunk without lifting the head. Bend the legs further, toes should touch the ground and straighten the trunk. 	<p>Unable to lift legs upwards, Also, not possible to hold position</p>	<p>Taking support with a wall and helping to the hold body on shoulders.</p>	<p>4/5 days taken for correction</p>	
<p><i>Pavanamuktāsana</i></p> <p>Supine Posture:</p> <ul style="list-style-type: none"> • While inhaling raise both legs up to 90°, bend both the legs at the knee and pull both the knees towards the chest with fingers interlocked. • Lift the head simultaneously and place the chin on the knees. • Normal breathing. 	<p>Difficulty to hold the legs with hands.</p>	<p>Giving support to hold leg and pressing knee on the chest.</p>	<p>2/3 days taken for correction</p>	



<p><i>Setubandhāsana</i></p> <ul style="list-style-type: none"> • Lie flat on your back, with your feet flat on the floor. • Now exhale and push up, and off the floor with your feet. • Raise your body up in such a way that your neck and head are flat on the ground, and the rest of your body is in the air. 	<p>Difficulty to hold the body on legs and shoulders.</p>	<p>Giving support with a hand to lift seat up.</p>	<p>2/3 days taken for correction</p>	
<p><i>Savāsana</i></p> <ul style="list-style-type: none"> • Lying down on the back. • Also, legs and hands apart • Palms facing the sky, collapse the whole body. • Eyes gently closed. 	<p>Unable to close eyes, moving body and legs, making noise.</p>	<p>Giving instructions orally.</p>	<p>1/2 days taken for correction</p>	

<i>PRONE_ASANA</i>				
<p><i>Bhujagāsana</i></p> <ul style="list-style-type: none"> • Place the palms beside the lower chest. • Inhale and come upward. • Arch the dorsal spine and neck backwards and below the navel should touch the ground. • Breathe normally. 	<p>Shifting the body weight to one side either to the left or to the right when lifting body up.</p>	<p>Giving instructions and correcting on the spot.</p>	<p>1/2 days taken for correction</p>	
<p><i>Dhanurāsana</i></p> <ul style="list-style-type: none"> • Bend the knees and hold the ankles by the palms. • Raise the head and the chest upwards. • Pull the legs outward and backward so that the spine is arched back like a bow. • Breathe normally. 	<p>Unable to hold legs with hands.</p>	<p>Taking practice with one leg and one hand held, then both legs.</p>	<p>3/4 days taken for correction</p>	

<p><i>Salabhāsana</i></p> <p>Prone Posture</p> <ul style="list-style-type: none"> • Make fists of palms. Place them under the thighs. • With inhale, raise both legs up without bending the knees. • Maintain this position with normal breathing. 	<p>Knees bent when lifting the legs. The head lifting too.</p>	<p>Doing practice with one- one leg, With teachers support lifting the both legs.</p>	<p>3/4 days taken for correction</p>	
<p>Breathing Exercise /PRANAYAMA</p>				
<p><i>Bhastrikā</i></p> <ul style="list-style-type: none"> • Inhale and exhale by expanding and compressing the chest vigorously. • The speed of breathing should be very fast. 	<p>Unable to inhale and exhale properly. No co-ordination</p>	<p>Ask to do Hunkar Practice and then bhasrika</p>	<p>3/4 days taken for correction</p>	

<ul style="list-style-type: none"> Concentrate on full inhalations and exhalation. 				
<p><i>Dérgha Svasana</i> <i>Dirghasvasana</i></p> <ul style="list-style-type: none"> Sit in any comfortable meditative posture. Inhale and exhale very slowly. Concentration on our breath. 	<p>Opening eyes and watching from one side to another.</p>	<p>Giving instruction to concentration on breathing.</p>	<p>3/4 days taken for correction</p>	
<p><i>Nädéçudhi Pränâyāma</i></p> <p>Sit in any comfortable meditative posture.</p> <ul style="list-style-type: none"> Adopt Nasika Mudra with right hand. Close left nostril inhale through right nostril Close the right nostril. Exhale and throw the left nostril. Again, inhale through left and 	<p>Confusion in which nostril inhale and which exhale.</p>	<p>Same nostril exhale and inhale. Repeat with another nostril.</p>	<p>3/4 days taken for correction</p>	

<p>exhale, through right nostril</p> <ul style="list-style-type: none"> • This is one round • Repeat nine rounds. 				
<p><i>Bhrāmaré Prānāyāma</i></p> <p>Sit erect, close the eyes and ears with fingers.</p> <ul style="list-style-type: none"> • Touch the tip of the tongue to the top of the palate. • Close the mouth and chant M-kara. 	<p>Screed to putting hands on eyes</p>	<p>Demo and practice one by one</p>	<p>2/3 days taken for correction</p>	
<p>MEDITATION / DHYANA</p>				
<p><i>Nādānusandhān</i></p> <p>Sit in any comfortable meditative posture.</p> <ul style="list-style-type: none"> • Adopt <i>Cinmudra</i>, Inhale slowly and completely. • While exhaling chant OM in a low pitch. 	<p>Shouting making different sounds while chanting.</p>	<p>Putting OM chanting in sound box and asking follow Om chanting</p>	<p>2/3 days taken for correction</p>	
<p>A+U+M Chanting</p>	<p>Making different sounds with A..U..M..</p>	<p>Taking practice one by one for two days</p>	<p>2/3 days taken for correction</p>	

<p>Sit in any comfortable meditative posture.</p> <ul style="list-style-type: none"> • Adopt <i>Cinmayamudra</i>, Inhale slowly and completely. While exhaling chant ‘A’ in a low pitch. • Adopt <i>Cinmayamudra mudra</i> chant ‘U’ slowly. • Adopt <i>adi mudra</i> and chant ‘M’ slowly. • Adopt <i>Brahmamudra</i> chant ‘A-U-M’ slowly. 	<p>Practice</p>			
<p>Music</p> <ul style="list-style-type: none"> • Lying down on the back. Legs apart, hands apart. OR • Sit in any comfortable meditative posture. • Listen music and relax our mind. 	<p>Unable to close eyes, moving body and legs, and making noise.</p>	<p>Giving instructions orally.</p>	<p>2/3 days taken for correction</p>	

APPENDIX 8.0

Flow chart of status of intellectually disabled children

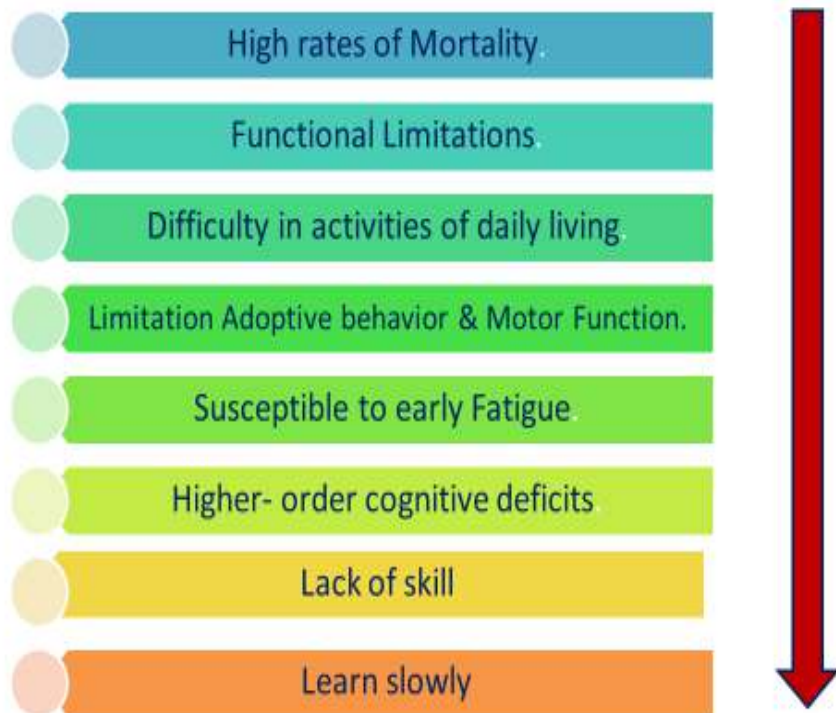
States of ID Children



APPENDIX 9.0

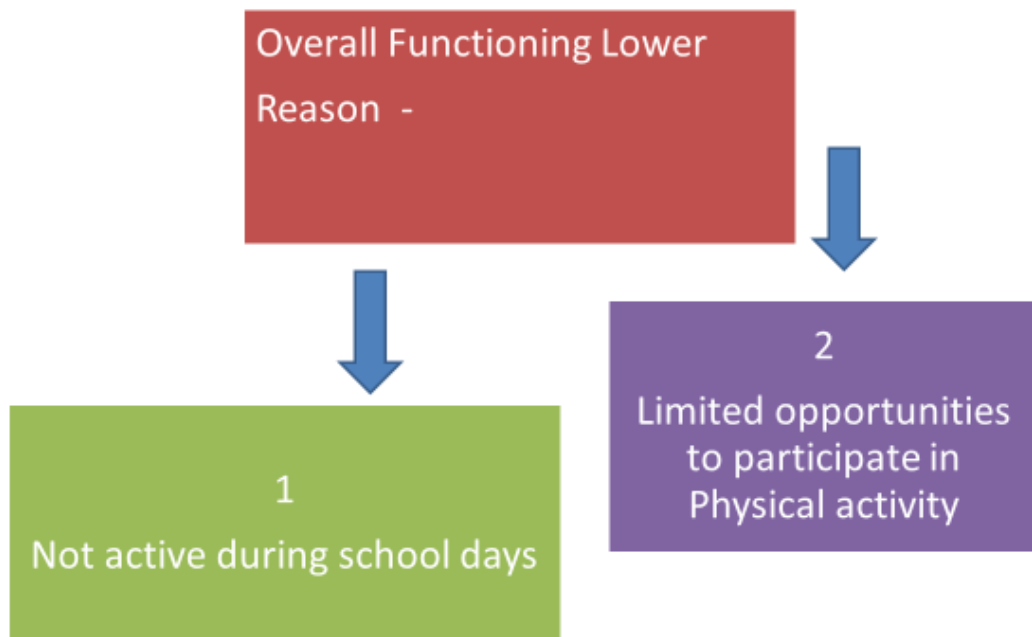
Physical & mental abilities of intellectually disabled children

States of ID Children



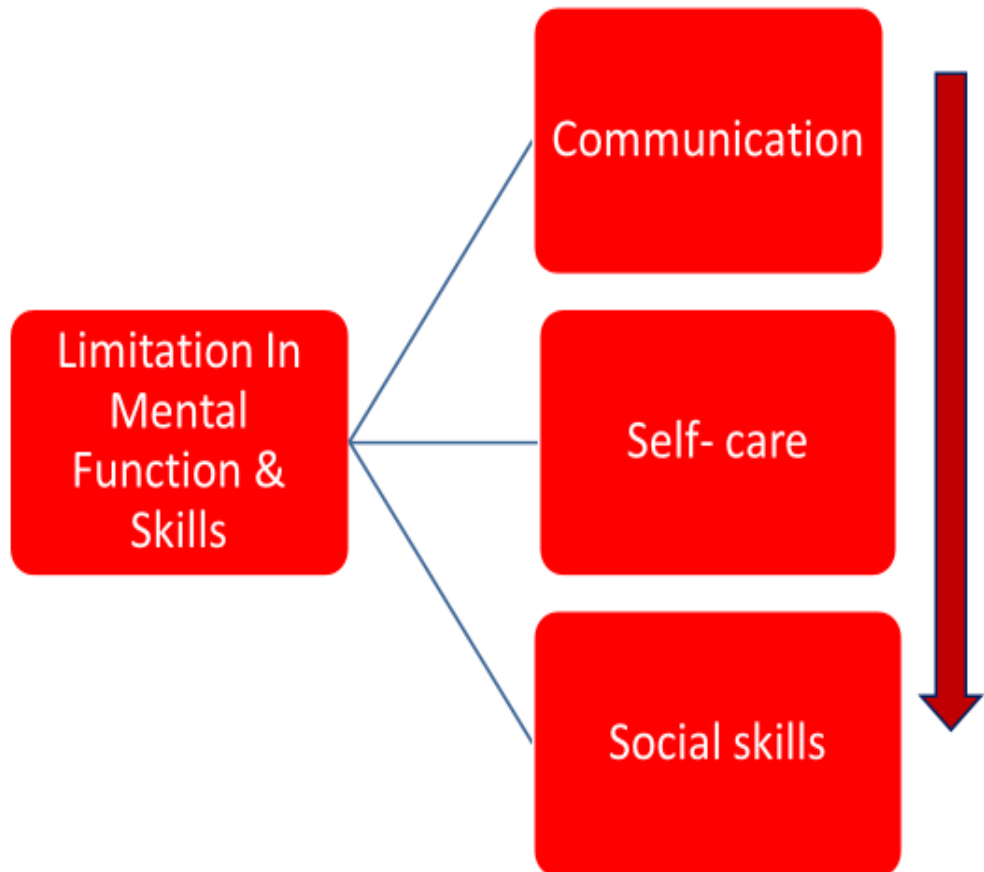
APPENDIX 10.0

Mental and physical abilities of intellectually disabled children



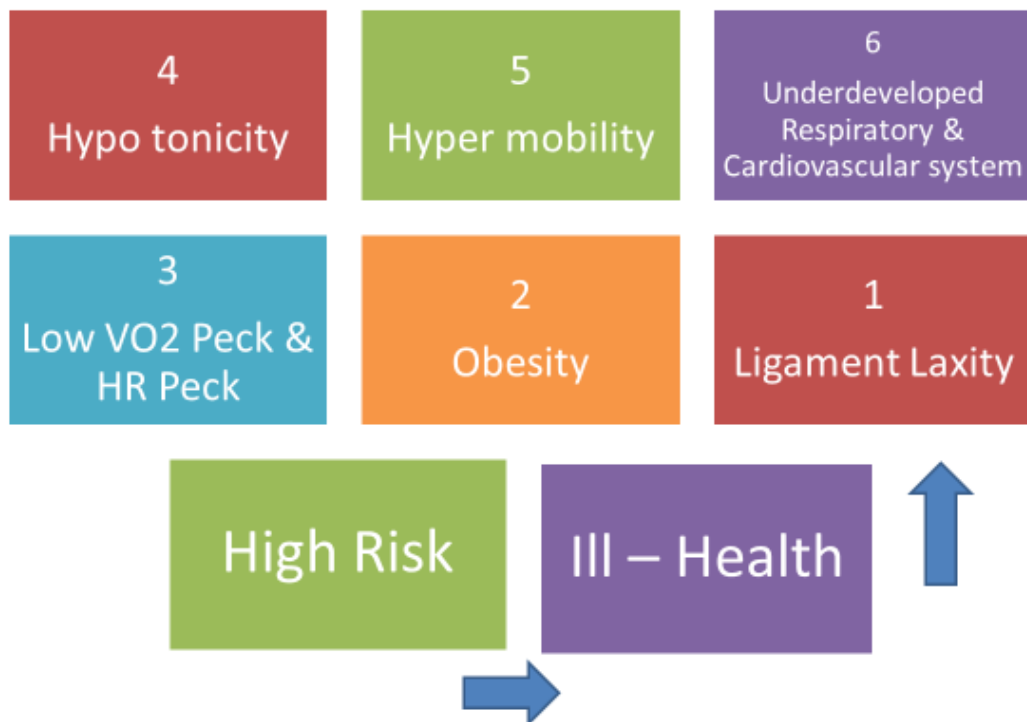
APPENDIX 11.0

Mental function & skills of intellectually disabled children



APPENDIX 12.0

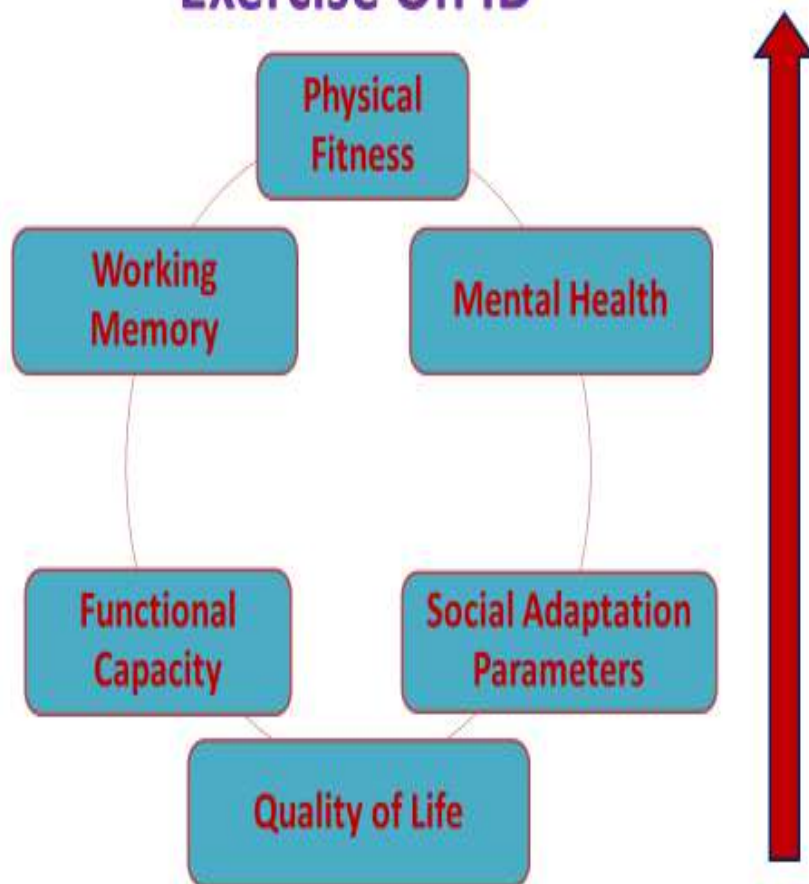
Physiological status of intellectually disabled children



APPENDIX 13.0

Mental function & skills of intellectually disabled children

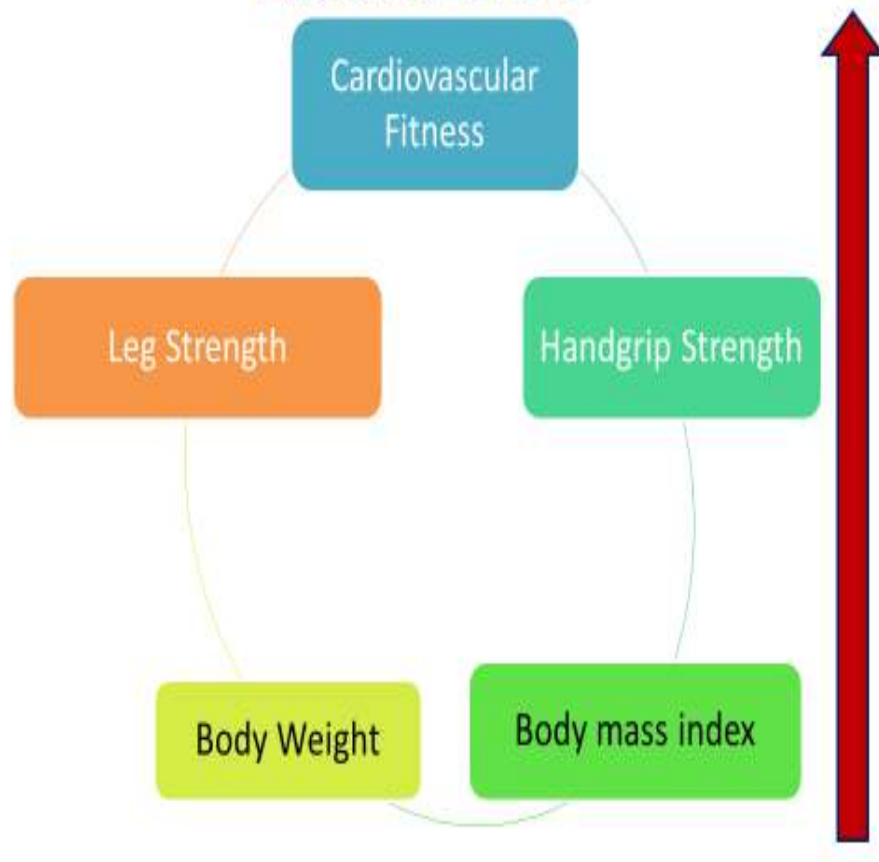
Positive Impact of Physical Activity & Exercise On ID



APPENDIX 14.0

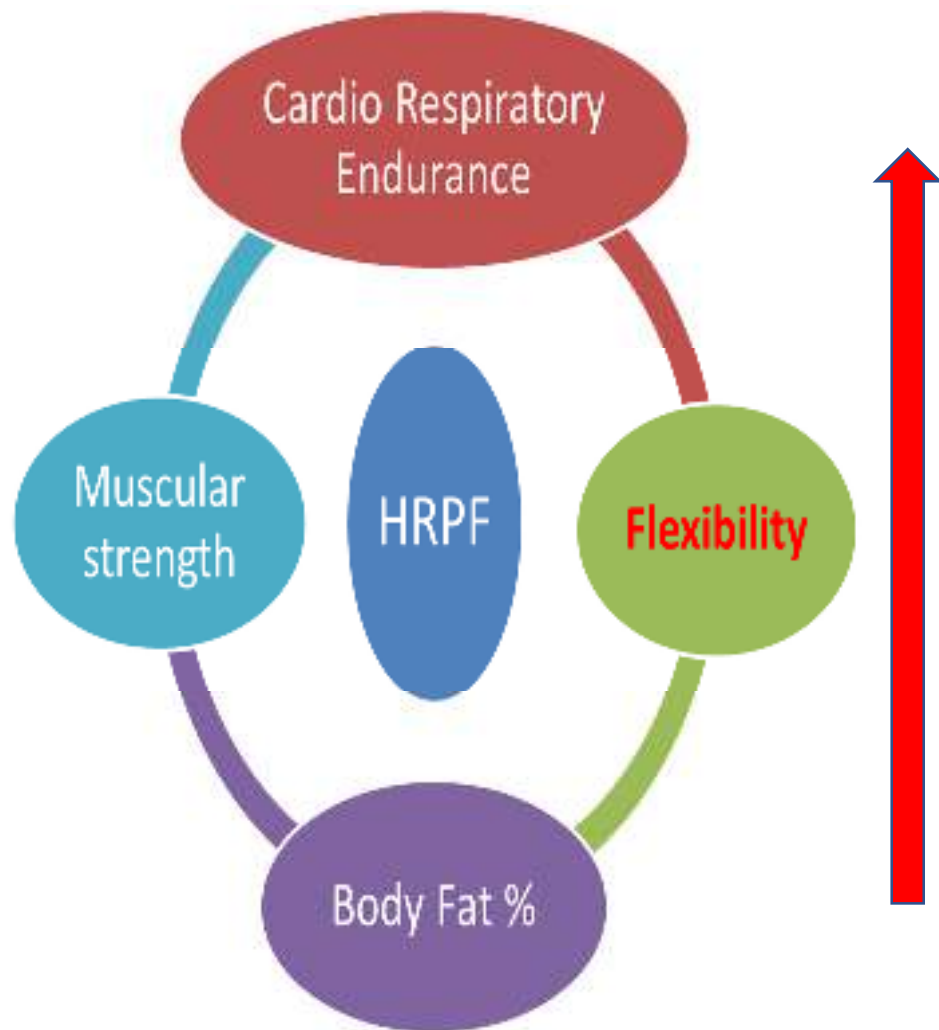
Mental function & skills of intellectually disabled children

Positive Impact of Physical Activity & Exercise On ID



APPENDIX 15.0

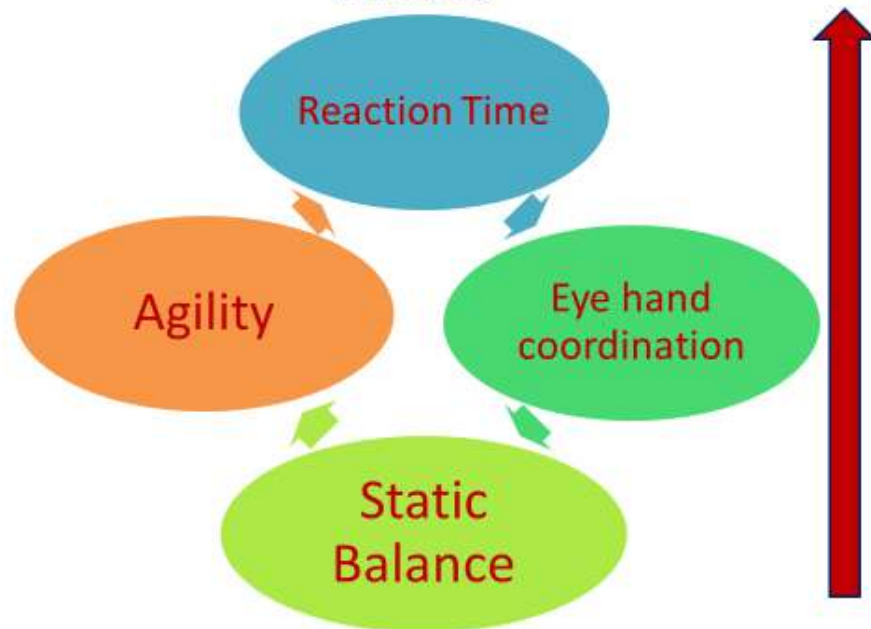
Impact of Yoga training on health related physical fitness in intellectually disabled children



APPENDIX 16.0

Impact of Yoga training on motor fitness in intellectually disabled children

12 weeks Yoga Training Impact on Motor Fitness



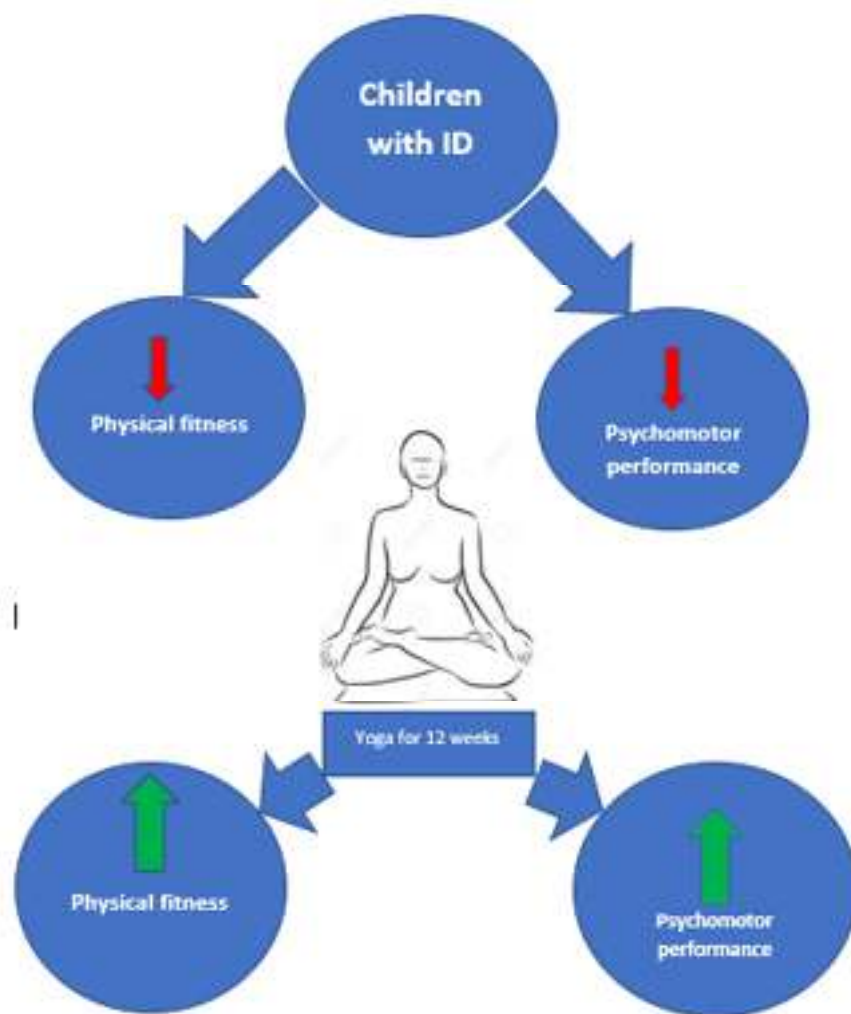
APPENDIX 17.0

Impact of Yoga training on psycho-motor abilities



APPENDIX 18.0

Impact of Yoga training on overall performance



APPENDIX 19.0

Raw Data

Demographic Data of Control Group

Code No.	Age	Height	Weight	BMI	IQ
1.	12	109.00	20.10	16.90	MI
2.	10	130.00	20.90	12.40	MO
3.	11	133.00	22.90	14.21	MI
4.	13	144.00	40.20	21.23	MO
5.	13	135.00	26.40	14.50	MO
6.	10	154.00	40.10	16.90	MO
7.	15	138.00	27.30	16.32	MO
8.	14	137.00	28.80	15.30	MO
9.	13	120.00	22.40	15.60	MI
10.	13	141.00	44.60	22.40	MO
11.	12	149.00	38.60	17.40	MO
12.	15	139.00	33.30	17.20	MO
13.	14	134.00	26.10	14.50	MO
14.	10	152.00	35.60	15.40	MI
15.	15	145.00	32.80	15.80	MI
16.	15	142.00	35.00	17.40	MI
17.	15	150.00	45.90	20.40	MI
18.	13	140.00	46.00	23.50	MO
19.	12	151.00	61.00	26.80	MI
20.	12	141.00	28.40	14.30	MO
21.	15	147.00	33.90	15.70	MI
22.	15	151.00	58.00	25.40	MI
23.	14	143.00	33.00	16.20	MI
24.	13	160.00	40.90	16.00	MO
25.	10	163.00	51.30	19.30	MO
26.	14	177.00	83.80	26.70	MO
27.	12	137.00	31.30	16.70	MI
28.	13	156.00	44.00	18.10	MO
29.	15	122.00	25.90	17.40	MI

Demographic Data of Experimental Group

Code No.	Age	Height	Weight	BMI	IQ
1.	10	145.00	33.40	15.90	MO
2.	11	122.00	23.60	15.90	MO
3.	14	123.00	30.90	20.40	MO
4.	14	127.00	35.20	21.80	MI
5.	14	123.00	25.10	16.60	MO
6.	14	160.00	63.00	24.60	MI
7.	11	148.00	48.40	22.10	MI
8.	13	161.00	38.50	14.90	MO
9.	14	123.00	22.80	15.10	MO
10.	14	140.00	39.00	19.90	MO
11.	13	160.00	60.40	23.60	MO
12.	13	138.00	29.50	15.50	MO
13.	12	156.00	30.40	12.50	MI
14.	13	133.00	29.30	16.60	MI
15.	10	151.00	55.50	24.30	MI
16.	12	142.00	29.30	14.50	MO
17.	13	147.00	32.40	15.00	MI
18.	13	135.00	27.80	15.30	MI
19.	11	129.00	29.70	17.80	MI
20.	13	140.00	29.40	15.00	MI
21.	12	143.00	32.30	15.00	MO
22.	10	141.00	29.70	14.90	MO
23.	14	148.00	45.00	17.80	MI
24.	14	142.00	44.00	22.00	MI
25.	11	125.00	23.90	15.30	MO
26.	13	134.00	29.00	16.20	MO
27.	14	142.00	48.30	24.00	MO
28.	13	146.00	40.40	19.00	MO
29.	10	134.00	38.00	21.20	MI
30.	11	148.00	29.20	13.30	MI
31.	11	124.00	20.30	13.20	MO
32.	11	133.00	30.90	17.50	MO

**Pre Test Data in Health Related Physical Fitness of
Control Group Participants**

Code No.	Cardiovascular endurance	Flexibility	Sit ups	Body Fat
1.	23.08	19.00	5.00	25.23
2.	30.61	5.00	7.00	27.54
3.	26.79	10.00	10.00	28.20
4.	28.30	18.00	19.00	16.10
5.	25.00	7.00	12.00	25.20
6.	27.78	15.00	8.00	25.40
7.	17.24	12.00	6.00	25.60
8.	22.73	13.00	8.00	30.20
9.	22.39	21.00	5.00	37.80
10.	20.27	22.00	14.00	23.70
11.	17.65	15.00	13.00	21.70
12.	16.48	19.00	15.00	25.00
13.	24.19	16.00	10.00	16.80
14.	21.13	8.00	11.00	18.70
15.	27.78	14.00	7.00	22.30
16.	25.86	15.00	10.00	23.20
17.	21.43	20.00	9.00	26.30
18.	25.42	20.00	16.00	27.50
19.	20.27	12.00	9.00	24.30
20.	22.06	18.00	5.00	18.50
21.	26.32	23.00	8.00	16.00
22.	21.43	21.00	5.00	28.50
23.	18.75	19.00	8.00	20.14
24.	25.86	23.00	9.00	20.10
25.	19.74	21.00	10.00	14.90
26.	24.19	21.00	11.00	22.60
27.	26.79	19.00	5.00	31.80
28.	20.27	16.00	12.00	19.50
29.	17.44	20.00	14.00	20.40

**Pre Test Data in Psycho-Motor Abilities of
Control Group Participants**

Code No.	Balance	Coordination	Agility	Reaction Time
1.	2.10	10.00	29.58	0.35
2.	2.00	23.00	21.54	0.34
3.	2.00	22.00	14.10	0.30
4.	1.00	12.00	22.32	0.35
5.	4.00	30.00	15.58	0.29
6.	2.12	25.00	13.58	0.28
7.	.90	25.00	21.67	0.26
8.	3.37	8.00	15.75	0.29
9.	2.90	3.00	27.60	0.29
10.	1.56	42.00	17.41	0.26
11.	1.20	30.00	14.76	0.26
12.	2.57	7.00	23.18	0.34
13.	8.50	30.00	16.21	0.26
14.	7.69	47.00	15.91	0.21
15.	2.68	9.00	22.67	0.32
16.	1.61	16.00	18.59	0.26
17.	1.05	33.00	17.06	0.33
18.	2.17	10.00	17.98	0.26
19.	2.10	12.00	30.99	0.30
20.	3.21	11.00	19.58	0.35
21.	1.80	25.00	20.12	0.35
22.	9.20	17.00	26.58	0.32
23.	1.88	15.00	16.25	0.35
24.	16.80	14.00	20.36	0.31
25.	3.39	37.00	15.32	0.25
26.	2.34	35.00	30.25	0.35
27.	1.54	14.00	24.15	0.30
28.	1.90	30.00	14.56	0.32
29.	3.20	20.00	18.24	0.35

**Post Test Data in Health Related Physical Fitness of
Control Group Participants**

Code No.	Cardiovascular endurance	Flexibility	Sit ups	Body Fat
1.	23.81	16.00	7.00	25.36
2.	30.00	7.00	8.00	28.63
3.	27.78	14.00	11.00	27.56
4.	28.30	18.00	15.00	18.39
5.	24.19	6.00	15.00	25.24
6.	25.00	22.00	10.00	26.30
7.	15.96	13.00	7.00	25.80
8.	24.19	17.00	9.00	30.40
9.	22.73	23.00	5.00	36.20
10.	20.83	19.00	13.00	22.80
11.	17.44	17.00	15.00	22.30
12.	17.05	6.00	11.00	24.20
13.	24.19	16.00	12.00	20.10
14.	24.19	6.00	13.00	19.50
15.	28.85	18.00	7.00	23.50
16.	26.32	15.00	9.00	23.80
17.	20.55	25.00	8.00	26.70
18.	25.42	25.00	14.00	27.90
19.	20.00	13.00	10.00	25.20
20.	22.39	18.00	7.00	19.30
21.	24.59	23.00	8.00	16.50
22.	20.55	10.00	7.00	30.80
23.	20.00	19.00	9.00	22.50
24.	25.86	25.00	8.00	21.20
25.	20.27	27.00	11.00	14.60
26.	24.19	19.00	8.00	22.80
27.	24.59	26.00	7.00	30.20
28.	20.27	16.00	14.00	20.40
29.	18.07	21.00	13.00	22.10

**Post Test Data in Psycho-Motor Abilities of
Control Group Participants**

Code No.	Balance	Coordination	Agility	Reaction Time
1.	2.20	12.00	37.51	0.29
2.	1.90	20.00	19.52	0.34
3.	1.17	25.00	14.48	0.28
4.	1.40	6.00	23.01	0.35
5.	4.48	18.00	15.30	0.25
6.	3.52	25.00	14.02	0.26
7.	2.10	24.00	23.14	0.26
8.	3.38	10.00	15.95	0.29
9.	2.11	9.00	24.67	0.29
10.	10.24	51.00	19.49	0.28
11.	1.02	42.00	16.03	0.24
12.	1.92	14.00	20.24	0.26
13.	2.69	27.00	20.84	0.25
14.	5.11	46.00	17.29	0.26
15.	1.91	16.00	21.16	0.31
16.	1.80	15.00	20.14	0.31
17.	1.21	21.00	17.45	0.29
18.	1.36	25.00	19.43	0.26
19.	2.30	10.00	27.52	0.33
20.	3.12	25.00	19.71	0.28
21.	1.70	20.00	22.31	0.35
22.	9.61	13.00	26.81	0.35
23.	1.72	14.00	18.45	0.35
24.	14.25	12.00	22.35	0.32
25.	6.40	39.00	15.38	0.22
26.	2.20	37.00	32.20	0.28
27.	1.08	12.00	24.50	0.26
28.	2.00	36.00	15.53	0.35
29.	1.90	18.00	19.24	0.35

**Pre Test Data in Health Related Physical Fitness of
Experimental Group Participants**

Code No.	Cardiovascular endurance	Flexibility	Sit ups	Body Fat
1.	27.27	19.00	7.00	22.50
2.	25.00	10.00	6.00	24.21
3.	19.48	9.00	5.00	33.80
4.	30.00	18.00	6.00	28.20
5.	22.73	12.00	7.00	25.21
6.	16.30	5.00	5.00	27.25
7.	19.74	2.00	9.00	21.50
8.	19.48	6.00	5.00	30.32
9.	17.05	10.00	16.00	28.26
10.	25.00	12.00	11.00	27.60
11.	22.73	21.00	14.00	27.30
12.	21.43	26.00	15.00	17.80
13.	25.42	-5.00	8.00	17.70
14.	25.42	16.00	10.00	25.50
15.	21.74	20.00	9.00	24.23
16.	22.73	9.00	10.00	23.30
17.	23.81	10.00	14.00	25.24
18.	22.39	16.00	7.00	23.21
19.	23.81	15.00	12.00	24.28
20.	18.75	3.00	10.00	22.10
21.	26.79	10.00	11.00	23.14
22.	18.99	11.00	11.00	18.24
23.	25.86	7.00	16.00	17.25
24.	16.85	10.00	15.00	22.23
25.	20.27	16.00	15.00	32.14
26.	21.74	9.00	12.00	25.40
27.	21.13	16.00	10.00	30.25
28.	17.44	4.00	8.00	27.00
29.	19.48	14.00	12.00	21.30
30.	21.43	8.00	9.00	18.80
31.	24.59	9.00	.00	15.60
32.	18.75	15.00	14.00	22.31

**Pre Test Data in Psycho-Motor Abilities of
Experimental Group Participants**

Code No.	Balance	Coordination	Agility	Reaction Time
1.	1.75	14.00	19.92	0.29
2.	1.61	7.00	38.24	0.34
3.	2.92	16.00	21.38	0.28
4.	2.61	6.00	28.21	0.33
5.	3.01	5.00	23.58	0.29
6.	1.04	22.00	26.38	0.35
7.	3.20	10.00	44.66	0.33
8.	5.58	21.00	33.87	0.35
9.	1.41	16.00	23.47	0.32
10.	1.01	2.00	31.32	0.35
11.	1.60	12.00	24.60	0.31
12.	5.05	35.00	16.55	0.28
13.	1.82	16.00	19.94	0.31
14.	12.49	22.00	18.45	0.29
15.	12.00	29.00	14.77	0.34
16.	5.35	8.00	17.06	0.33
17.	3.87	21.00	19.29	0.29
18.	2.15	9.00	15.57	0.34
19.	2.07	11.00	23.10	0.32
20.	4.46	25.00	16.69	0.31
21.	1.12	5.00	30.29	0.35
22.	1.35	19.00	16.50	0.34
23.	1.25	30.00	17.71	0.29
24.	1.64	20.00	16.75	0.30
25.	8.41	29.00	20.31	0.31
26.	2.13	14.00	38.71	0.35
27.	1.19	25.00	24.39	0.32
28.	2.00	10.00	18.67	0.33
29.	1.09	22.00	19.36	0.31
30.	2.05	10.00	20.40	0.29
31.	5.02	12.00	19.85	0.29
32.	1.02	10.00	22.88	0.35

**Post Test Data in Health Related Physical Fitness of
Experimental Group Participants**

Code No.	Cardiovascular endurance	Flexibility	Sit ups	Body Fat
1.	27.27	24.00	19.00	26.90
2.	25.86	19.00	14.00	22.23
3.	20.83	17.00	15.00	33.70
4.	31.25	26.00	15.00	28.50
5.	23.08	23.00	16.00	27.25
6.	16.48	4.00	8.00	23.24
7.	20.55	5.00	12.00	19.23
8.	19.48	7.00	11.00	26.24
9.	17.44	17.00	16.00	26.32
10.	25.42	16.00	20.00	27.60
11.	22.73	24.00	19.00	27.20
12.	21.13	27.00	19.00	17.90
13.	25.42	10.00	14.00	21.80
14.	25.00	22.00	12.00	24.50
15.	22.73	34.00	18.00	23.00
16.	23.81	22.00	15.00	23.70
17.	23.44	16.00	15.00	27.70
18.	22.73	25.00	10.00	22.25
19.	24.19	25.00	14.00	26.00
20.	18.99	12.00	11.00	22.90
21.	26.79	13.00	14.00	21.10
22.	19.23	13.00	14.00	16.30
23.	26.32	12.00	18.00	17.60
24.	17.86	12.00	21.00	18.25
25.	20.27	19.00	17.00	30.90
26.	22.73	15.00	16.00	23.20
27.	21.43	22.00	16.00	27.10
28.	17.24	15.00	18.00	26.60
29.	19.48	22.00	16.00	21.20
30.	21.43	17.00	15.00	16.90
31.	26.32	14.00	10.00	16.40
32.	19.23	24.00	15.00	19.25

**Post Test Data in Psycho-Motor Abilities of
Experimental Group Participants**

Code No.	Balance	Coordination	Agility	Reaction Time
1.	4.95	22.00	17.74	0.18
2.	3.49	16.00	20.48	0.27
3.	7.25	22.00	17.36	0.19
4.	3.05	21.00	25.62	0.26
5.	8.21	16.00	18.68	0.29
6.	2.16	32.00	25.40	0.21
7.	3.52	21.00	31.48	0.26
8.	5.01	28.00	.00	0.22
9.	2.42	24.00	23.17	0.23
10.	5.42	12.00	26.15	0.22
11.	2.56	26.00	23.10	0.21
12.	7.38	48.00	13.61	0.27
13.	3.69	27.00	17.48	0.27
14.	16.45	30.00	16.60	0.24
15.	15.65	39.00	16.04	0.17
16.	6.27	24.00	16.24	0.22
17.	8.23	29.00	19.65	0.24
18.	6.32	18.00	15.83	0.17
19.	5.48	20.00	23.83	0.21
20.	8.55	40.00	14.99	0.18
21.	2.61	18.00	18.93	0.33
22.	4.00	33.00	14.36	0.21
23.	4.63	47.00	14.60	0.19
24.	5.32	22.00	15.38	0.21
25.	13.76	31.00	16.39	0.18
26.	5.38	17.00	18.04	0.18
27.	5.91	30.00	20.12	0.22
28.	3.53	18.00	16.40	0.27
29.	4.49	31.00	20.27	0.26
30.	3.87	35.00	16.99	0.21
31.	5.33	19.00	21.02	0.20
32.	5.22	18.00	23.03	0.21

APPENDIX 20.0

LIST OF PUBLICATIONS FROM THIS DOCTORAL WORK

1. Pise, V., Pradhan, B., & Gharote, M. M. (2017). Validation of yoga module for children with intellectual disabilities. *Industrial psychiatry journal*, 26(2), 151-154.
2. Pise, V., Pradhan, B., & Gharote, M. M. (2018). Effect of yoga practices on psycho-motor abilities among intellectually disabled children. *Journal of exercise rehabilitation*, 14(4), 581-585. doi:10.12965/jer.1836290.145
3. Pise, V., Pradhan, B., & Gharote, M. M. (2019). Body mass index status among children with intellectual disability. *International Journal of Physiology, Nutrition and Physical Education*, 4(1), 106-108.