

# Dr. Olahraga Mengenalkan Teknik Senam Dasar

Jurnal Dharma Pendidikan dan Keolahragaan. dharmapendidikan. Mengenalkan Teknik Dasar Sepak Takraw Melalui Sosialisasi Olahraga Sepak Takraw di SMP Negeri 20 Kota Bengkulu.

Aktivitas pengabdian ini bertujuan memberikan pengenalan, pengetahuan dan pemahaman kepada peserta didik tentang permainan sepak takraw di SMP Negeri 20 Kota Bengkulu. Tempat kegiatan dilakukan di SMPN 20 Kota Bengkulu dengan mengambil satu kelas sebagai sampel utama dengan jumlah siswa 15 peserta didik. Metode pengabdian ini menggunakan metode ceramah, observasi atau pengamatan secara langsung di lapangan dan wawancara kepada peserta didik. Untuk mendapatkan informasi tentang tingkat pengetahuan peserta didik mengenai olahraga Sepak Takraw maka digunakanlah angket. Pengabdian ini menggunakan analisis persentase untuk mengetahui tingkat pengetahuan peserta didik sebelum dan setalah pelaksanaan kegiatan. Hasil analisis data menggambarkan bahwa pada sebelum kegiatan sebanyak 15% peserta didik tidak mengetahui tentang teknik dasar sepak takraw. Sedangkan setelah kegiatan diketahui sebanyak 75% peserta didik mengetahui tentang teknik dasar Sepak Takraw. Disimpulkan bahwa peserta kegiatan mengalami peningkatan pengetahuan mengenai teknik dasar Sepak Takraw.

. Jurnal Porkes. Porkes. Analisis Teknik Dasar Olahraga Futsal. Analisis Teknik Dasar Olahraga Futsal. Corner: Jurnal Pendidikan Jasmani dan Olahraga. Corner. Kontribusi Mata Kuliah Pendidikan Olahraga Dasar MI/SD Terhadap Keterampilan Teknik Dasar Olahraga Mahasiswa PGMI STAINU Temanggung.

Abstrak: Penelitian ini fokus pada seberapa besar kontribusi mata kuliah Pendidikan Olahraga MI/SD terhadap keterampilan teknik olahraga mahasiswa PGMI INISNU Temanggung. Penelitian ini menggunakan pendekatan deskriptif kuantitatif. Populasi berjumlah 55 orang. Sampel berjumlah 15 orang. Teknik pengambilan sampel

menggunakan purposive sampling. Variabel dalam penelitian ini adalah Kontribusi mata kuliah Pendidikan Olahraga Dasar terhadap keterampilan teknik sepak bola, bola voli, tenis meja dan bulutangkis. Pengumpulan menggunakan angket, observasi dan dokumentasi. Analisis data menggunakan analisis deskriptif kuantitatif. Dari keseluruhan cabang olahraga didapat peningkatan rata-rata 16 % dengan presentase total 51 %. termasuk kategori cukup. Kata Kunci: Pendidikan Olahraga Dasar; Keterampilan Teknik Olahraga; mahasiswa PGMI.

. Malih Peddas (Majalah Ilmiah Pendidikan Dasar). malihpeddas. PENGEMBANGAN SENAM AEROBIK KIDS UNTUK MATERI PENDIDIKAN JASMANI OLAHRAGA DAN KESEHATAN SISWA SEKOLAH DASAR.

**ABSTRACT** In the process of study in physical education, sport, and health for elementary school student, aerobic gymnastic is can used as one of matery in rhitmic activity for V class. Will hoped to add the variety in physical education, sport, and health material which limited variety. This research becomes the development f the research it self. The procedures of this research which is used consist of the analysis of product which is developed, to improve product earlier, the expert validation, the field trial, consist of the small group test and the big group test, product revision, and the development product result. The research result is a product model for aerobic gymnastic can be used as media learning of physical education, sport, and health. Based on the scale wide test to the product, the using of aerobic gymnastic model to the student, it can increase the pulse for about 62% from 120 student. From the response which is given to 120 student to the psycomotor aspect which including in a good category as much as 94 student, middle category as much as 23 student, and low category as much as 3 student. For Cognitive aspect including a good category as much as 81 student, middle category as much as 34 student, and low category as much as 5 student. Affective aspect which including good category as much as 88 student, middle category as much as 26 student, and low category as much as 6 student. Based on the research result which is concluded?é?á: (1) The development of aerobic gymnastic model for learning physical education, sport, and health elementary school students can be increase physical activity student in learning. Improvement pulse rate that happened of students until 62 %. This matter is knowable from means of pulse rate before learning aerobic gymnastic is 93 times a minut, and experiencing of improvement

until 150 times a minut after following learn aerobic gymnastic. (2) The student is very interesting and feels happy with the aerobic gymnastic model which is taught so that the student can move effectively in learning implementation.  
Keywords: Development, Aerobic Gymnastic, Physical Education, Elementary School Student.

. Jurnal Pendidikan Olahraga. JPO. PENGEMBANGAN KETERAMPILAN GERAK DASAR LOKOMOTOR BERBASIS SENAM RITMIK.

Tujuan Penelitian ini adalah untuk menghasilkan sebuah model keterampilan gerak dasar lokaotor senam ritmik sesuai kondisi kebutuhan dilapangan pada situasi global yang mengalami percepatan pertumbuhan dan perkembangan. Jenis penelitian yang dilakukan ini menggunakan metode penelitian pengembangan atau disebut juga dengan Research and Development . Metode Penelitian dan Pengembangan merupakan metode penelitian yang digunakan untuk menghasilkan produk dan menilai lokasi yang cocok untuk latihan ritmik pada produk tersebut. Penelitian pengembangan ini menggunakan penelitian pengembangan (Research and Development) dari Borg dan Gall(1983:775) yang terdiri dari sepuluh langkah dalam penelitian, antara lain: (1) Pengumpulan informasi dan (2) Perencanaan (3) Pengembangan pendahuluan produk (4) Uji pendahuluan lapangan (5) Revisi produk utama (6) Uji lapangan utama . (7) Revisi produk operasional (8) Uji coba lapangan operasional (9) Produk akhir (10) Sosialisasi dan implementasi. Ada pun bentuk dan rancangan penelitian pengembangan ini menggunakan metode campuran penelitian yang menggabungkan kualitatif dan kuantitatif hal ini untuk memperoleh semua data atau informasi secara komprehensif. Sasaran atau yang menjadikan subyek dalam penelitian ini adalah mahasiswa IKIP PGRI Pontianak Program Studi Pendidikan Jasmani Semester 3 yang berstatus mahasiswa aktif.Teknik pengambilan subyek yang diterapkan dalam penelitian ini menggunakan teknik sampling jenuh/sensus, yang dikenal juga sebagai semua anggota populasi yang digunakan sebagai subjek penelitian, subyek yang dikumpulkan 16 orang (aktif sebagai mahasiswa) melalui uji kelompok kecil dan kelompok besar. Hasil dalam penelitian perkembangan ini adalah menemukan sebuah model suatu proses keterampilan gerak dasar lokaotor senam ritmik yang dapat didisentralisasi pada tingkat sekolah pendidikan dan tingkat perguruan tinggi yang mengandung lima unsur gerak yaitu statis dan dinamis, keluwesan (fleksibilitas), kesinambungan (kontinuitas), tepat waktu gerakan dengan irama, keselarasan antara hitungan

(ketukan) dengan gerak. hasil yang dapat dibuktikan pada hasil perbedaan antara uji coba kelompok skala kecil dengan hasil uji coba kelompok skala besar dengan nilai sebesar 78 dengan ketuntasan yang di capai sebesar 15.6%. Kata Kunci: Pengembangan Model, Keterapilan Gerak Dasar, Senam Ritmik

. Malih Peddas (Majalah Ilmiah Pendidikan Dasar). malihpeddas. PENGEMBANGAN SENAM BOLA BERKARAKTER UNTUK MATERI PENDIDIKAN JASMANI OLAHRAGA DAN KESEHATAN SISWA SEKOLAH DASAR.

In the process of study in physical education,sport, and health for elementary school student, gymnastic ball characteris can used as one of matery in rhitmic activity for V class. Will hoped to add the variety in physical education,sport, and health material which limited variety. This research becomes the development f the research it self. The procedures of this research which is used consist of the analysis of product which is developed, to improve product earlier, the expert validation, the field trial, consist of the small group test and the big group test, product revision, and the development product resultThe research result is a product model for gymnastic ball charactercan be used as media learning of?é?á physical education,sport, and health. Based on the scale wide test to the product, the using of gymnastic ball charactermodel to the student, it can increase the pulse for about 62% from 120 student. From the response which is given to 120 student to the psycomotor aspect which including in a good category as much as 94 student, middle category as much as 23 student, and low category as much as 3 student. For Cognitive aspect including a good category as much as 81 student, middle category as much as 34 student, and low category as much as 5 student. Affective aspect which including good category as much as 88 student, middle category as much as 26 student, and low category as much as 6 student.Based on the researh result which is concluded?é?á: (1) The development of gymnastic ball charactermodel for learning physical education,sport, and health elementary school students can be increase physical activity student in learning. Improvement pulse rate that happened?é?á of students until 62 %. This matter is knowable from means of pulse rate before learning gymnastic ball characteris 93 times a minut, and experiencing of improvement until 150 times a minut after following learn aerobic gymnastic. (2) The student is very intersting and feels happy with the gymnastic ball charactermodel which is thaught so that the student can move effectively in learning implementation.

. Jurnal Olahraga dan Kesehatan Indonesia. JOKI. ANALISIS TEKNIK DASAR BOWLING OLAHRAGA KRIKET.

Penelitian ini bertujuan untuk mengetahui tingkat keterampilan teknik dasar Bowling mahasiswa UKM Kriket Universitas Jambi. Olahraga Kriket merupakan permainan yang bersifat beregu. Tiap-tiap regu terdiri atas 11 orang, Dan mengandalkan melempar bola untuk menyulitkan pemukul untuk memukul bola dan mencetak poin. Oleh sebab itu, seorang pemain harus menguasai Teknik dasar Bowling dengan benar. Teknik pengumpulan data yang digunakan adalah dengan Lembar tes Keterampilan teknik dasar Bowling yang dilakukan melalui suatu pengamatan, dengan disertai pencatatan terhadap keadaan atau perilaku objek sasaran . Sampel dalam penelitian ini adalah mahasiswa UKM Kriket Universitas Jambi yang berjumlah 11 mahasiswa. Instrumen yang digunakan yaitu tes keterampilan teknik dasar Bowling. Hasil penelitian ini dari 11 sampel yang di teliti dan di tes keterampilan teknik dasar bowling ada 7 atlet UKM Kriket Universitas Jambi yang memiliki keterampilan teknik dasar bowling pada kategori sangat baik, dan 4 orang atlet Kriket yang memiliki keterampilan bowling pada kategori baik. Dapat disimpulkan bahwa keterampilan teknik dasar bowling pada UKM Kriket Universitas Jambi pada kategori sangat baik.

. SPRINTER: Jurnal Ilmu Olahraga. spr. Tingkat Keterampilan Senam Lantai Guling Depan Pada Siswa Sekolah Dasar.

The purpose of the study was to see the level of floor gymnastics ability in the front roll of students. The research method uses a quantitative descriptive approach and the type of research with the survey method, sampling with purposive sampling with a sample size of 82 students. Research instruments with front roll skill tests and data analysis with descriptive statistics with percentages. The results of the research on the level of front rolling skills in the excellent category (0%), good (15.86%), moderate category (43.90%) less (20.73%), and very poor category (19.51%). The conclusion in the study can be understood that the front roll skills of students who are in the moderate category.

. Jendela Olahraga. JO. Evaluasi Program Pembinaan Senam Artistik Sekolah Dasar Di Kabupaten Pemalang.

The determination of this research is to support the artistic gymnastics coaching program in Pemalang district of Central java. The approach used in the assessment of this program is the CIPP Model of Daniel Stufflebeam in terms of context, input, process, and product. There are three elementary schools that thrived in representing the name of Pemalang Regency to become champions in the artistic gymnastics competition in Central Java, the schools are from SDN Padek 01, SDN Pamutih 02 and MI Muhammadiyah. The collecting data used observation technique, interviews and documentation in the form of archives as supporting data. While the informant sources were the Principal, sport teacher/trainer, students as the gymnasts and parents of students. The analysis technique used is descriptive analysis. The results of the study show that: At the input stage, the athlete recruitment as a trainee was done voluntarily in accordance with the interests and talents sought since he/she entered first grade, for the determined criteria are applied well, inadequate facilities, insufficient and simple infrastructure. Keywords: Evaluation, Artistic Gymnastics Development Program, Elementary School AbstrakTujuan Penelitian ini untuk mengevaluasi program pembinaan senam artistik di kabupaten pemalang. Metode penelitian yang digunakan yaitu deskriptif kualitatif. Pendekatan yang digunakan dalam penelitian evaluasi program ini adalah CIPP Model (Daniel Stufflebeam's) ditinjau dari tahap context, input, proces, dan product. Ada tiga sekolah dasar yang berhasil membawa nama kabupaten pemalang untuk menjadi juara dalam kompetisi senam artistik tingkat Jawa Tengah, yaitu dari SDN Padek 01, SDN Pamutih 02 dan MI Muhammadiyah. Pengumpulan data menggunakan teknik Pengamatan(observasi), wawancara (interview) dan dokumentasi berupa arsip sebagai data pendukung. Sedangkan informan yang digunakan adalah Kepala Sekolah, Guru Penjasorkes/pelatih, siswa sebagai pesenam serta orang tua siswa. penelitian menunjukan bahwa: Pada tahap input perekrutan atlet sebagai peserta pelatihan secara suka rela sesuai dengan minat dan bakat dicari sejak dia masuk kelas satu,untuk kriteria yang ditetapkan dilaksanakan dengan baik,fasilitas yang kurang memadai,sarana prasarana kurang memadai dan sederhana. Kata kunci: Evaluasi, Program Pembinaan Senam Artistik, sekolah Dasar

. JURNAL PENDIDIKAN OLAHRAGA. jpo. Pelatihan Shadow sebagai Solusi Melatih Teknik Dasar pada Olahraga Cricket untuk Menciptakan Atlet Berprestasi dari Jenjang Sekolah Dasar.

Pelatih olahraga yang berkompeten harus menggunakan teori ilmiah kepelatihan olahraga dan harus bisa memberikan variasi dalam proses pelatihan. Tujuan dari penelitian ini adalah untuk mengkaji solusi melatih teknik dasar pada olahraga cricket untuk menciptakan atlet yang berprestasi. Penelitian ini termasuk penelitian kajian pustaka. Data yang dibutuhkan adalah artikel ilmiah yang telah terbit di berbagai jurnal. Pencarian artikel dilakukan menggunakan mesin pencarian cepat Google Scholar diperoleh 11.400 artikel dengan kata kunci. Kata kunci yang dimasukan adalah shadow training dan dimulai dari terbitan tahun 2020 hingga 2024. Artikel yang digunakan sebagai data primer adalah artikel yang terbit pada jurnal nasional, minimal terakreditasi nasional, dan jurnal internasional bereputasi. Terpilih 20 artikel sesuai dengan topik dimaksud di atas, kemudian artikel yang digunakan adalah artikel dari hasil penelitian eksperimen dan survey langsung. Berdasarkan hasil screening diperoleh 8 artikel yang eligible untuk dikaji. Hasil pengkajian menunjukkan bahwa pelatihan shadow sangat relevan dilakukan dalam melatih teknik dasar. Disarankan bagi pelatih untuk mencoba pelatihan shadow karena gerakan yang tidak sulit, mudah diingat dan berdampak pada teknik dasar bagi pemula dari jenjang sekolah dasar.

. Gelanggang Olahraga: Jurnal Pendidikan Jasmani dan Olahraga (JPJO). JPJO. Studi tentang Kemampuan Teknik Dasar Sepak Bola.

This study aims to determine the mastery of the techniques of passing, control, dribbling and shooting students of SMP Negeri 2 Lubuklinggau. This type of research is descriptive qualitative. The population in this study were all students who took part in soccer extracurricular activities totaling 20 people. The sampling technique uses total sampling technique. Data were collected using measurements of all three variables, tests conducted were tests of passing, control and dribbling. Data were analyzed with descriptive statistics namely frequency tabulation. The results of the study, based on the analysis of passing and controlling test data, found that out of 20 students, none had passing and control in either category, and 8 students (40%) had abilities in the Medium category and 12 students (60%) has the ability to pass and control in the category of Less. While the dribbling ability of 20 students, obtained 4 students (20%) have dribbling ability in the Good category, and 9 students (45%) have dribbling ability in the Medium category and 7 students (35%) are included in the Poor category. For kicks (shooting) students who have the Very Good category

are as many as 2 people (10%) and the Good category are as many as 3 people (15%) and those who have a Fair category are as many as 8 people (40%) and 5 people (25 %) has Very Less Shooting ability. Conclusion, it still needs to be improved in basic soccer technical training. Keywords: Ability, Basic Football Techniques

. MAJORA: Majalah Ilmiah Olahraga. MAJORA. Hambatan dalam pembelajaran senam di Sekolah Dasar.

Senam merupakan salah satu cabang olahraga yang gerakannya sangat kompleks dan memiliki manfaat untuk mengembangkan komponen fisik serta kemampuan gerak, khususnya pada anak usia sekolah dasar. Pembelajaran senam dalam setiap jenjang pendidikan memiliki tingkat kesulitan yang berbeda-beda. Penelitian ini bertujuan untuk mengetahui hambatan apa saja yang menjadi permasalahan dalam pembelajaran senam di sekolah dasar. Metode penelitian yang digunakan adalah deskriptif kuantitatif menggunakan metode survey dengan teknik pengambilan data menggunakan angket. Populasi penelitian adalah Guru Penjasorkes se-Daerah Istimewa Yogyakarta. Teknik analisis data menggunakan analisis deskriptif yang dituangkan dalam persentase. Hasil dari penelitian ini menunjukkan bahwa hambatan dalam pembelajaran senam berdasarkan lima aspek, yaitu aspek guru sebesar 16,86%, murid sebesar 42,15%, sarana dan prasarana sebesar 30,39%, kurikulum sebesar 6,53% dan lingkungan sebesar 17,64%. BARRIERS IN GYMNASTICS LEARNINGAbstractsGymnastics is a sport whose movements are very complex and have benefits for developing physical components and mobility, especially for elementary school-aged children. Gymnastics learning at every level of education has different levels of difficulty. This study aims to determine what barriers are the problems in learning gymnastics in elementary schools. The research method used is descriptive quantitative using survey methods with data collection techniques using a questionnaire. The study population was Physical Education Teachers in the Special Region of Yogyakarta. The data analysis technique used descriptive analysis as stated in the percentage. The results of this study indicate that the barriers in gymnastics learning are based on five aspects, namely the teacher aspect of 16.86%, the student's 42.15%, the facilities and infrastructure of 30.39%, the curriculum of 6.53% and the environment of 17. 64%.

. JURNAL OLAHRAGA PAPUA. J. Olahraga. Papua. Kemampuan Teknik Dasar

Bulu Tangkis Siswa Ekstrakurikuler SMA Negeri 1 Tanah Abang.

Tujuan penelitian ini yaitu untuk mengetahui keterampilan teknik dasar dalam permainan bulu tangkis. Penelitian ini merupakan jenis penelitian deskriptif dengan metode survei. Subjek yang terlibat dalam penelitian ini yaitu siswa SMS Negeri 1 Tanah Abang. Teknik pengumpulan data menggunakan tes dan pengukuran. Instrumen yang digunakan yaitu rubrik penilaian dengan 5 standar nilai. Teknik analisis data menggunakan statistik deskriptif dengan bantuan rumus persentase. Hasil penelitian menunjukkan tingkat keterampilan teknik permainan bulu tangkis siswa ekstrakurikuler bulu tangkis SMA Negeri 1 Tanah Abang dinyatakan cukup terampil dalam bermain karena memiliki kategori teknik dengan poin 1,95.

. Jorpres (Jurnal Olahraga Prestasi). j. olahraga prestasi. PENGEMBANGAN MEDIA BERBASIS ADOBE FLASH PLAYER LATIHAN TEKNIK DASAR FUTSAL.

This research is taken from the lack of basic futsal technique that makes players tend to be fatigued in training which is given by the coach. Therefore, the development about basic training media, such as adobe flash player is necessary in learning process. This research focuses on the development of media in learning by using adobe flash player. This study is research and development. The development model of this research is adapted from the development model of Borg & Gall. Borg & Gall's development research stages are: (1) research and data collection, (2) planning, (3) product draft development, (4) first field test, (5) revise test results, (6) field test, (7) result field product test improvement, (8) field test implementation, (9) final product improvement, also (10) dissemination and implementation. This product contains material on futsal basic engineering practice. Media development using Adobe Flash CS6 Professional software. The material presented is (1) basic futsal technique, (2) brief futsal, (3) futsal rules, also (4) field size, line, goal and futsal ball. Based on the stages adapted from the development model of Borg and Gall then obtained the following results: Assessment and validation of the material experts showed that the medium of learning both with a mean value of 3.87. Assessment and validation of media experts showed that the medium of learning both with the average value 4. The results of small group trials showed very good result that is average 4.42. The results of large group trials showed excellent results with a mean of 4.55. In operational test and product effectiveness, pre test and post test of 2 groups were applied. The first group was given media influence, and the second

group as the control group. Operational test results pretest value 73.92 seconds into the category enough, and for the average post-test value of 58.25 seconds into the category enough. The effectiveness test shows that the interactive learning media has significant effectiveness with t count value  $> t$  table that is  $123,922 > 1,70329$  and p value (significance)  $0.000 < 0,05$  meaning that the media is effective. As the final conclusion stated that the product proved effective. For the posttest average value of 58.25 seconds into the category enough. As the final conclusion stated that this product proved effective.

**ABSTRAK** Penelitian ini dilatarbelakangi oleh minimnya model latihan teknik dasar futsal, sehingga pemain cenderung jenuh dengan materi latihan teknik dasar yang diberikan pelatihnya. Oleh karena itu, perlu adanya pengembangan mengenai media latihan teknik dasar futsal yang tadinya bersifat konvensional menjadi media yang berbasis adobe flash player. Penelitian ini bertujuan menghasilkan produk berupa media pembelajaran interaktif berbasis adobe flash player. Konten dalam media ini berisikan pengembangan materi latihan teknik dasar futsal untuk pembina/pelatih ekstrakurikuler futsal di SMA/SMK sederajat di Kabupaten Banjarnegara. Jenis penelitian ini merupakan penelitian dan pengembangan (research and development). Model pengembangan dalam penelitian ini diadaptasi dari model pengembangan Borg & Gall. Adapun langkah-langkah penelitian pengembangan yang dilakukan Borg & Gall yakni: (1) penelitian dan pengumpulan data, (2) perencanaan, (3) pengembangan draf produk, (4) uji coba lapangan awal, (5) merevisi hasil uji coba, (6) uji coba lapangan, (7) penyempurnaan produk hasil uji lapangan, (8) uji pelaksanaan lapangan, (9) penyempurnaan produk akhir, serta (10) desiminasi dan implementasi. Produk ini memuat materi tentang latihan teknik dasar futsal. Pengembangan media menggunakan software Adobe Flash CS6 Professional. Materi yang disajikan adalah (1) latihan teknik dasar futsal, (2) sejarah singkat futsal, (3) peraturan futsal, serta (4) ukuran lapangan, garis, gawang, dan bola futsal. Berdasarkan tahapan-tahapan yang diadaptasi dari model pengembangan Borg and Gall maka didapatkan hasil sebagai berikut: Penilaian dan validasi ahli materi menunjukkan bahwa media pembelajaran baik dengan nilai rerata 3,87. Penilaian dan validasi ahli media menunjukkan bahwa media pembelajaran baik dengan nilai rerata 4. Hasil uji coba kelompok kecil menunjukkan hasil sangat baik yaitu rerata 4,42. Hasil uji coba kelompok besar menunjukkan hasil sangat baik dengan rerata 4,55. Pada uji operasional dan efektifitas produk, diberlakukan pre-test dan post-test terhadap 2

kelompok. Kelompok pertama yang diberikan pengaruh media, dan kelompok kedua sebagai kelompok kontrol. hasil uji coba operasional nilai pre-test 73,92 detik masuk ke dalam kategori cukup, dan untuk nilai rata-rata post-test 58,25 detik masuk ke dalam kategori cukup. Uji efektifitas menunjukan bahwa media pembelajaran interaktif memiliki keefektifan yang signifikan dengan nilai t hitung  $> t$  tabel yaitu  $123,922 > 1,70329$  dan nilai p (signifikansi)  $0,000 < 0,05$  yang berarti bahwa media tersebut efektif. Sebagai simpulan akhir dinyatakan bahwa produk terbukti efektif. untuk nilai rata-rata post-test 58,25 detik masuk ke dalam kategori cukup. Sebagai simpulan akhir dinyatakan bahwa produk ini terbukti efektif.

. VENUE : Jurnal Olahraga. venue. Keterampilan Teknik Dasar Sepak Sila (Survei pada Mahasiswa Minat Bakat Olahraga Sepak Takraw Pendidikan Olahraga Universitas Muhammadiyah Surakarta).

Olahraga adalah suatu jenis aktivitas fisik, atau kegiatan aktivitas fisik dengan tujuan untuk meningkatkan kemampuan dan daya tahan fisik seseorang.? Olahraga memiliki peran yang sangat penting dalam kehidupan sehari-hari, karena dengan melakukan kegiatan olahraga secara rutin, kehidupan akan menjadi lebih sehat dan lebih baik. Salah satu kegiatan olah raga yang populer dan dikenal luas dikenal di Indonesia di kalangan masyarakat umum adalah olah raga sepak takraw .Kegiatan olah raga yang ada di Indonesia dikalangan masyarakat umum adalah olah raga sepak takraw . Pasalnya ?antusiasme masyarakat terhadap sepak takraw terlihat jelas, mulai dari tingkat Desa , Klub , SD , hingga tingkat Perguruan Tinggi. Olahraga sepak takraw telah mulai melekat dengan permainan-permainan yang populer di kalangan masyarakat. Sepak takraw sendiri banyak dipertandingkan dan juga banyak diturunkan beberapa nomor pertandingan diantaranya, yaitu beregu, double event, kuadran. Dalam permainan sepak takraw sendiri sudah banyak dimainkan dan dipertandingkan oleh masyarakat, baik dalam perlombaan antar desa kegiatan antar sekolah maupun kegiatan perlombaan antar klub. Sepak takraw adalah kombinasi dari sepak bola dan bola voli. Setelah Didirikan pada tahun 2021, Minat Bakat Olahraga (MBO) Sepak Takraw di Program Studi Pendidikan Olahraga Universitas Muhammadiyah Surakarta memiliki banyak peminat. MBO Sepak Takraw berlangsung di GOR Kampus 2 Universitas Muhammadiyah Surakarta setiap dua kali seminggu, pada hari senin dan jum'at.

. Laksana Olahraga. Laksana Olahraga. Pelatihan Teknik Dasar Sepakbola pada

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Mahasiswa PJKR SD FIKK UNM.

Knowledge and mastery of the basic techniques of playing soccer have not been entirely mastered by PJKR SD students who have programmed football courses. Some of them did not graduate so they cannot program advanced soccer courses. This is because the background or branch of each student varies and the frequency of face-to-face meetings in lectures is considered insufficient to master all the basic techniques in football, so students need additional time outside class hours such as practicing or repeating lecture material to adjust to their skills. Therefore, this training can at least provide a clear picture of the basic techniques of playing soccer and improve their skills in mastering the basic techniques of football. The methods used in this service are demonstration and lecture methods so that through this training students can skillfully demonstrate basic football techniques ranging from simple basic techniques to more complex techniques.   Keywords: exercise; basic technique; football; student

. Jurnal Pedagogi Olahraga dan Kesehatan. J.Pedagogi Olahraga & Kes..

Pengembangan alat bantu belajar gerak teknik dasar servis tenis untuk yunior pemula.

Penelitian ini bertujuan untuk menghasilkan sebuah alat bantu belajar teknik servis tenis yang efektif untuk meningkatkan teknik servis yunior pemula, yang memenuhi syarat edukatif, teknis, dan estetis. Penelitian ini merupakan penelitian dan pengembangan dengan tahapan meliputi menggali potensi dan masalah, pengumpulan informasi, rancangan produk, pembuatan produk, validasi produk, revisi produk, uji skala kecil, uji skala besar dan uji efektivitas. Subjek pada uji skala kecil terdiri dari dua orang pelatih dan delapan yunior pemula. Subjek pada skala besar terdiri dari empat pelatih tenis DIY, dan tiga belas yunior pemula. Hasil penelitian menunjukkan bahwa alat bantu servis yang dikembangkan berdasarkan syarat edukatif, teknik, dan estetika. Alat bantu servis yang dikembangkan dinyatakan layak oleh ahli tenis, ahli teknologi pembelajaran, ahli teknologi dan rekayasa dengan kategori "baik", serta oleh pelatih dan yunior pemula dengan kategori "baik". Alat bantu servis efektif untuk meningkatkan teknik servis yunior pemula dengan hasil kenaikan dengan rerata sebesar 13,06. Developing a learning aid to basic motions in tennis service techniques for junior beginners AbstractThis study aims to produce a learning aid to effective tennis service techniques to

improve the serving techniques of junior beginners, relevant to the educational, technical, and esthetic requirements. This was a research and development study using the steps of potential and problem investigation, information collection, product design, product making, product validation, product revision, small-scale appropriateness testing, large-scale appropriateness testing, and effectiveness testing. The subjects in the small-scale testing were two coaches and eight junior beginners. The subjects in the large-scale testing were four tennis coaches of Yogyakarta Special Region and 13 junior beginners. The results of the study show that the junior beginner service aid is developed on the basis of the rules of educative, technical, and esthetic requirements. The developed service aid is appropriate for the tennis experts, learning technology experts, engineering experts with a good category, and a good category from the coaches and junior beginners. The serving aid is effective to improve junior beginners' service techniques with an improvement of 13.06.

. Jendela Olahraga. JO. Pengaruh Model Pembelajaran Kooperatif Tipe Stad (Student Team Achievement Division) Terhadap Kemampuan Dasar Senam Rhytmik. The research aimed to discover the influence of cooperative learning method type STAD (Student Teams Achievement Division) toward emotional intelligence student's of SDN Kompleks IKIP I Makassar. The population of the research were all students at the school. There were 35 students as sample chosen randomly which treated by using cooperative learning method. The test of gymnastic rhythmic employed to collect the data and analyzed by using T-Test with SPSS 20 which were taken after Normality and Homogeneity Test. The result showed that, 1) There was a significant effect from the cooperative learning method toward student's gymnastic rhythmic ability, 2) Cooperative learning method was more effective than conventional method in developing student's gymnastic rhythmic ability. Thus it can be inferred that cooperative learning gives a positive impact toward student's development in learning. Keywords: Cooperative learning, Student Teams Achievement Division, Sport Education, Gymnastic Rhythmic ability

Abstrak Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran kooperatif tipe STAD (Student Teams Achievement Division) terhadap kemampuan dasar senam rhytmik siswa SD Negeri Kompleks IKIP 1 Makassar. Populasi pada penelitian ini adalah jumlah keseluruhan dari SD Negeri Kompleks IKIP 1 Makassar. dengan sampel berjumlah 30 (1 kelas)

orang yang dipilih secara acak, dengan perlakuan menggunakan model pembelajaran kooperatif tipe STAD (Student Teams Achievement Division). Sedangkan untuk memperoleh data kemampuan senam rytmik siswa dilakukan dengan melakukan tes gerak dasar senam rytmik dengan menggunakan alat simpai. Data dalam penelitian ini kemudian dianalisis dengan menggunakan uji T dengan bantuan aplikasi SPSS 20 yang sebelumnya melewati uji prasyarat tes normal dan homogenitas. Berdasarkan hasil penelitian maka dihasilkan kesimpulan sebagai berikut : (1) Terdapat pengaruh model pembelajaran kooperatif tipe STAD (Student Teams Achievement Division) terhadap kemampuan senam rytmik siswa. (2) Model pembelajaran kooperatif tipe STAD (Student Teams Achievement Division) lebih efektif dibandingkan model pembelajaran konvensional dalam meningkatkan kemampuan dasar senam rytmik siswa. Kata Kunci: Model Pembelajaran Kooperatif Tipe STAD (Team GroupTournament), Pendidikan Jasmani, Kemampuan Dasar Senam Rytmik.

. Jurnal SPORTIF : Jurnal Penelitian Pembelajaran. SPORTIF. Pendekatan bermain sebagai solusi mengenalkan teknik dasar sepak takraw.

Penelitian ini bertujuan untuk menghasilkan model pengenalan teknik dasar sepak takraw melalui pendekatan bermain untuk anak sekolah dasar kelas atas. Penelitian ini dilakukan dengan mengadaptasi 8 langkah-langkah penelitian Borg & Gall, langkah-langkah tersebut antara lain: (1) pengumpulan informasi lapangan, (2) analisis informasi yang telah dikumpulkan, (3) mengembangkan produk awal, (4) validasi ahli dan revisi, (5) uji coba lapangan skala kecil dan revisi, (6) uji coba lapangan skala besar dan revisi, (7) pembuatan produk final, (8) uji efektivitas produk. Uji coba skala kecil dilakukan terhadap 22 anak sekolah dasar kelas atas (SDN Sukorejo 01). Uji coba skala besar dilakukan terhadap 82 anak sekolah dasar kelas atas (SDN Bendogerit 02, SDN Gedog 02, dan SDN Sentul 01). Instrumen yang digunakan untuk pengumpulan data adalah pedoman pengamatan, wawancara, catatan lapangan, skala nilai, lembar penilaian uji efektivitas, dan penilaian hasil belajar. Hasil penelitian ini berupa model pengenalan teknik dasar sepak takraw melalui pendekatan bermain, yang berisikan 5 model permainan berdasarkan teknik dasar sepak takraw dan disusun dalam bentuk buku panduan permainan. Dari hasil penilaian para ahli materi dan praktisi, dapat ditarik kesimpulan bahwa model pengenalan teknik dasar sepak takraw melalui pendekatan

bermain untuk anak sekolah dasar berkategori baik dan efektif, sehingga model permainan layak untuk digunakan.

. Gelanggang Olahraga: Jurnal Pendidikan Jasmani dan Olahraga (JPJO). JPJO. Pengembangan Modul Teknik Dasar Bola Basket Siswa Kelas VIII MTS.

This study aims to develop a basic basketball technique module and to determine the quality of the module in terms of validity and practicality as well as having a potential effect. This research is a development research that refers to the development of the ADDIE model, namely Analysis (Analysis), Design (design or design), Development (Development), implementation (implementation or execution), and Evaluation (evaluation or feedback). The evaluation stage was not carried out due to the time in the study. The instruments used to measure the quality of the developed modules include validation sheets, practicality questionnaires with scores. The results showed that, 1) the module design seen from the aspect of validity was included in the very valid category with an average score of 4.5; 2) the quality of the module seen from the practical aspect is categorized as practical from the one to one test with an average score of 4.5 categorized as very practical and small groups with an average score of 4.5 categorized as very practical. In conclusion, the development of the basic basketball technique module has produced teaching material products that can be used by students in basketball learning

Keywords: Basic Basketball Technique Module

*solutions manual to accompany shriver atkins inorganic chemistry 5th edition  
psat 8 9 student guide the college board mean median mode worksheets with  
answers y the last man vol 1 unmanned short circuit coordination study arc flash  
hazard analysis*

## **SOLUTIONS MANUAL TO ACCOMPANY SHRIVER ATKINS INORGANIC CHEMISTRY 5TH EDITION**

**How do you pass inorganic chemistry?**

**What is the best way to revise inorganic chemistry?** Use Visual Aids and Diagrams Inorganic Chemistry involves complex structures and reactions. Utilize visual aids, such as diagrams, flowcharts, and molecular models, to understand and visualize these concepts. Visual representations can enhance your understanding and make it easier to remember the information.

**Is inorganic chemistry easy or hard?** Generally, organic chemistry is considered to be the most challenging of the three, as it requires a deep understanding of the structure and reactivity of carbon-based molecules. Inorganic chemistry is also challenging, as it involves the study of complex inorganic compounds and their reactions.

### **How to memorize reactions in inorganic chemistry?**

**What is the best way to revise chemistry?** Re-read the course materials and make summary notes. Alternatively, you can use the summaries provided at Chemrevise.org. After you've made your notes, a great idea is to create your own prompt cards – easy to read notes summarising each new fact or point that you do not remember easily.

**What is the correct sequence to study inorganic chemistry?** First of all for studying both Inorganic and Organic chemistry you should start with 'Periodic Properties' and then 'Chemical Bonding'. You should make all concepts clear in your mind. After this for studying organic chemistry you should follow this order: 1. Isomerism and IUPAC naming because you'll...

**Which is harder between organic and inorganic chemistry?** Inorganic chemistry, on the other hand, is more focused on the properties and reactions of elements and their compounds. Organic chemistry is generally considered to be more difficult than inorganic chemistry.

**How can I improve my marks in inorganic chemistry?** Identify high-weightage topics and master them thoroughly. Topics like chemical bonding, thermodynamics, organic reaction mechanisms, and coordination compounds are often crucial for scoring well.

### **How can I pass chemistry easily?**

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**What do I need to know for inorganic chemistry?** Inorganic chemists study the chemical structure and reactivity of inorganic compounds. But to understand the behavior of compounds, we need to start with a firm understanding of atomic structure, and how atomic structure results in periodic trends.

**How to pass organic chemistry easily?** Passing organic chemistry will require you to put in a little study time every day. Take the time to read over your notes so you don't forget important concepts covered earlier in the course. You should also work on solving as many organic chemistry problems as you can.

## **PSAT 8 9 STUDENT GUIDE THE COLLEGE BOARD**

### **How to prepare students for PSAT 8-9?**

**Do colleges care about PSAT 8 9?** PSAT 8/9 scores aren't sent to colleges. Schools choose when the PSAT 8/9 is offered. The only way your child can sign up for the PSAT 8/9 is through their school—not through the College Board. Each school's signup process differs, so talk to your child's school counselor to learn more.

**Is 1150 a good PSAT 8 9 score?** It's worth noting that if you take the PSAT 8/9, it has a lower best possible score than the PSAT 10 and PSAT/NMSQT. It is scored out of 1440, rather than 1520. That being said, the 75th percentile for freshmen is around 960, so if you get a score above that, you're in a great position.

**Is a 1210 a good PSAT 8 9 score?** The average PSAT/NMSQT score is about 920. A score between 1210 and 1520 puts you in the top 10% of test takers.

**Is PSAT 8-9 easier than PSAT 10?** Difficulty Levels: The PSAT 8/9 is less difficult compared to the PSAT 10. It is designed to assess the skills that students have acquired in earlier grades, while the PSAT 10 is used to gauge students' skills after an additional year of study.

**Does Khan Academy have PSAT 8-9 prep?** Use your PSAT 8/9 Math score to find interactive practice resources on Khan Academy that will help with what you're learning in class. Get started today at [khanacademy.org](https://www.khanacademy.org).

**What is a perfect score on PSAT 8-9?** The range of possible scores: 240–1440 for total score, and 120–720 for section scores. The All Tester Percentile (formally called the “User Percentile”) of each score. For example, if a student's score is in the 70th percentile, 70% of a comparison group achieved scores at or below that student's score.

**Is 1300 a bad PSAT score?** If your child scored in the middle (1100 to 1300): A score in this range means that your child is on par with or a little above the other students who took this test. If your child is in the 10th grade, this might actually be good news because he was competing against a lot of 11th grade students.

**Does PSAT 8 9 qualify for National Merit?** The 2024 Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT®) is the qualifying test for entry to the 2026 National Merit® Scholarship Program. (The PSAT™10 and PSAT™8/9 will NOT be considered for entry to the National Merit Scholarship Program.)

### **What percentile is 1250 on PSAT 8 9?**

**What is a bad PSAT score?** Below Average Overall PSAT Scores: 950 or Below [ GOOD TO KNOW: What does your PSAT score mean for the SAT or ACT? ]

**Is 970 a bad PSAT score?** Take a deep breath and don't worry, a 970 on the PSAT is a solid start and gives you a benchmark for where you are. The PSAT is scored on a scale of 320 to 1520. Your score means you're above the 50th percentile nationally, which is a good milestone.

**Do colleges see PSAT 8 9 scores?** The College Board does not send PSAT 8/9 scores to colleges. These scores are not intended to be part of college admission decisions. They should not be included on student transcripts that will be reproduced and sent to colleges unless the student (if 18 or older) or parent/ guardian has granted permission.

**What is a 990 on the PSAT?** A 990 on the PSAT places you around the 50th percentile, meaning you scored as well as or better than half of the students who took the exam. It's a pretty good starting point already, and many students see significant improvement by the time they take the SAT with focused practice and preparation.

**Is 910 a bad PSAT score?** 10th-grade students who scored between 320 and 910 on the PSAT test will fall within the lower 50% of all test takers.

**Is 1010 a good PSAT 8 9 score?** A PSAT score of 850–860 is considered decent and will place your 9th grader in the 50th percentile range. To reach the top 10%, a student needs a score of 1110 or above. To be among the top 1% of 9th grader PSAT test takers, your student would need a score of 1280–1440.

**What grade level is the PSAT 8 9?** What Is the PSAT 8/9? The PSAT 8/9 is the first exam in the College Board's "SAT Suite of Assessments" and is offered to eighth and ninth graders. The purpose of the PSAT 8/9 is to establish a starting point in terms of college and career readiness as students transition to high school.

**What are the benefits of the PSAT 8 9?** The PSAT 8/9 tests what you learn in class and allows your school to see the areas where you are on track for success in college. You'll also be able to pinpoint the skills that need more attention and practice.

#### **What is the best PSAT 8 9 scores?**

**What math does the PSAT 8 9 cover?** The Math section of the digital PSAT 8/9 is designed to measure your success with building critical college and career readiness knowledge and skills in math. It focuses on key elements of algebra, advanced math, problem-solving and data analysis, and geometry and trigonometry.

**Does PSAT 8 9 predict SAT?** For example, if you scored in the 80th percentile on the PSAT 8/9, that means you performed better than 80% of the students in your age group. Comparing this percentile result to SAT percentiles can give you an approximate SAT score range.

**What kind of questions are on the PSAT 8-9?** The PSAT 8/9 is broken down into reading & writing and math, totaling 98 questions. A majority of the questions are multiple choice; however, a few of the math section questions ask students to type in the answer rather than select it.

**Can you study for the PSAT 9?** Preparing for the PSAT 8/9 with practice tests can significantly enhance your performance. Start by understanding the structure of the

test, which includes the Reading Test, the Writing and Language Test, and the Math Test. Familiarize yourself with the types of questions and the time allocated for each section.

**What is a good PSAT score for a 9th grader?** A PSAT score of 990–1000 is considered “good” for a freshman and will land your student in the top 25% of 9th-grade test takers. A PSAT score of 850–860 is considered decent and will place your 9th grader in the 50th percentile range. To reach the top 10%, a student needs a score of 1110 or above.

**How long does it take to take the PSAT 8 9?** Under standard conditions, the PSAT 8/9 is 2 hours and 14 minutes of testing time, plus breaks: 64 minutes for the Reading and Writing Test. 70 minutes for the Math Test.

## **MEAN MEDIAN MODE WORKSHEETS WITH ANSWERS**

**What is the mean median mode and range of 21 62 66 66 79 28 63 48 59 94 19?**  
The correct answer is: Mean: 55, median: 62, mode: 66, range: 75.

**How to solve a question with mean, median, and mode?**

**What is the mean median and mode 3rd grade?** The mean is the average where the sum of all the numbers is divided by the total number of numbers, whereas the median is the middle value in the list of given numbers numerically ordered from smallest to biggest and mode is the value of the number which occurs most often in the list.

**What is the median for 82 23 59 94 70 26 32 83 87 94 32?** The correct answer is:  
Mean: 62, median: 70, mode: 32, 94, range: 71.

**What is the median of 2,5,8,4,9,6,7?** median=  $(7+1)/2$  th term =  $8/2$  th term = 4 th term = 6.

**What is the median of 2 3 4 5 1 2 3 4 6 5?** to find the median, you have to arrange them in order. The LCM of the denominators is 60. The median is, clearly 3/4. Mark

this answer Brainliest if it helps you.

**What is the mode in 4 6 8 6 3 6 8 7 9 4 3 8 6 and 8?** First, we need to count how many times each number appears: - 4 appears 2 times - 6 appears 4 times - 8 appears 4 times - 3 appears 2 times - 7 appears 1 time - 9 appears 1 time The mode is the number that appears most frequently. In this case, both 6 and 8 appear 4 times, which is more than any other number.

**What is the easiest way to find mean median and mode?**

**What is the mode of 3 9 4 5 3 7 2 8 3?** Answer: the mode is 3.

**How do you explain mean median and mode to a child?** Ways to Remember Each Term A common rhyme found in multiple sources- Hey diddle diddle, the Median's the middle; you add and divide for the Mean. The Mode is the one that appears the most, and the Range is the difference between.

**How to teach mean, median, and mode in a fun way?** This is a fun simple center to practice mean , median , and mode . Picture this: Adorable Easter basket full of Easter eggs. Each Easter egg has a number inside. The students pull out 5 eggs and with those 5 numbers, they find the mean , median , mode , and range.

**What is mean median mode and range for 5th graders?** Mean is the average of all of the numbers. Median is the middle number, when in order. Mode is the most common number. Range is the largest number minus the smallest number.

**What is the median of 1 2 3 4 5 6 8 9?** Therefore, the median of the first 10 natural numbers is 5.5.

**What is the median of 7 10 7 5 9 10?** Expert-Verified Answer Number of observations = 6 , is even ,So median is the average of 3rd and 4th terms . Average of 3rd & 4 th terms =  $7 + 9 / 2 = 8$  . Therefore ,The median is 8 .

**What is the median of 3 5 1 2 12 13 6 5 1 6 7 9?** The median of the given set of numbers is 9/10.

**What is the median of the numbers 6 14 12 8 10 9 11?** Hence required median =(7+12)th term =10.

**What is the median of 7 3 5 8 6 10 9 12 A 8 B 6 C 7.5 D 7?** Hence, The Correct Answer is 7.5.

**What is the median of 2,7, 4,8, 9, 10, 6, 12, 13?** Check Your Performance Today with our Free Mock Tests used by Toppers! Arranging the data sample in ascending order: 2, 4, 6, 7, 8, 9, 10, 12, 13. The median is the middle value which separates the higher half from the lower half in a data sample. After arranging them in ascending order, 8 is the Middle value.

**What is the median of 3 1 0 6 5 3 4 1 2 2?** So median is 4.

**What is the median of 10, 6, 2, 3, 8, 15?** Expert-Verified Answer hence, median of given observations is 7.

**What is the median of 0, 1, 2, 3, 4, 5?** The items are already arranged in order. Because there is an even number of item, we take the average of the two middle items, which are 2 and 3. The mean of these two numbers is 2.5, so the median of the numbers listed is 2.5.

**What is the mode of 63 25 43 28 72 61 45 46 13?** 13,25,28,43,45,46,61,63,72. Also, the mode of the given data is, In the given data, no observation occurs more than once. Hence, the mean is 44, the median is 45, the mode is 0, and the range is 59.

**What is the median of 24 22 32 59 99 59 76 83 21 95 57?** Final answer: The correct mean is approximately 57.0, the median is 59, the mode is 59, and the range is 78.

**What is the range of 67 70 49 95 40 97 62 54 42?** Your dataset does not have a mode since none of the numbers repeat. Range is the difference between the highest and the lowest number in a data set. Hence, range for your dataset is  $97 - 40 = 57$ .

**How do you find the median mode and mean and range?**

## **Y THE LAST MAN VOL 1 UNMANNED**

What My Last Man Did. What My Last Man Did. The Last Man. Introduction.

DR. OLAHRAGA MENGENALKAN TEKNIK SENAM DASAR

Introduction.

I visited Naples in the year 1818. On the 8th of December of that year, my companion and I crossed the Bay, to visit the antiquities which are scattered on the shores of Baiae. The translucent and shining waters of the calm sea covered...

. Gatewood. The Last Free Man. The Last Free Man.

The chapter begins with Gatewood's newfound fame on local radio in Lexington, and his interest in the affairs of the city and This chapter follows Gatewood's campaigns for U.S. Congress in 2002, as well as for Kentucky Attorney General in 2003. It describes various friendships, as well as the process of writing his autobiography, The Last Free Man in America. It covers his gubernatorial campaigns in 2007 and 2011, and concludes with his health issues and eventual death, in January 2012.

. The Last Man. Chapter 26. Chapter 26.

Eventful winter passed; winter, the respite of our ills. By degrees the sun, which with slant beams had before yielded the more extended reign to night, lengthened his diurnal journey, and mounted his highest throne, at once the fosterer of earth's new beauty, and...

. The Last Man. Chapter 23. Chapter 23.

Idris stirred and awoke; alas! she awoke to misery. She saw the signs of disease on my countenance, and wondered how she could permit the long night to pass without her having sought, not cure, that was impossible, but alleviation to my sufferings. She...

. The Last Man. Chapter 6. Chapter 6.

When we arrived at Windsor, I found that Raymond and Perdita had departed for the continent. I took possession of my sister's cottage, and blessed myself that I lived within view of Windsor Castle. It was a curious fact, that at this period, when...

. The Last Man. Chapter 9. Chapter 9.

In the mean time what did Perdita?

During the first months of his Protectorate, Raymond and she had been inseparable; each project was discussed with her, each plan approved by her. I never beheld any one so perfectly happy as my sweet sister. Her expressive...

. The Last Man. Chapter 17. Chapter 17.

I have lingered thus long on the extreme bank, the wasting shoal that stretched into the stream of life, dallying with the shadow of death. Thus long, I have cradled my heart in retrospection of past happiness, when hope was. Why not for ever...

. The Last Man. Chapter 3. Chapter 3.

Happy, thrice happy, were the months, and weeks, and hours of that year. Friendship, hand in hand with admiration, tenderness and respect, built a bower of delight in my heart, late rough as an untrod wild in America, as the homeless wind or herbless...

. The Last Man. Chapter 28. Chapter 28.

We had now reached Switzerland, so long the final mark and aim of our exertions. We had looked, I know not wherefore, with hope and pleasing expectation on her congregation of hills and snowy crags, and opened our bosoms with renewed spirits to the...

. The Last Man. Chapter 20. Chapter 20.

Half England was desolate, when October came, and the equinoctial winds swept over the earth, chilling the ardours of the unhealthy season. The summer, which was uncommonly hot, had been protracted into the beginning of this month, when on the eighteenth a sudden change...

. The Last Man. Chapter 16. Chapter 16.

Some disorder had surely crept into the course of the elements, destroying their benignant influence. The wind, prince of air, raged through his kingdom, lashing the sea into fury, and subduing the rebel earth into some sort of obedience.

. The Last Man. Chapter 4. Chapter 4.

The next day Lord Raymond called at Perdita's cottage, on his way to Windsor Castle. My sister's heightened colour and sparkling eyes half revealed her secret to me. He was perfectly self-possessed; he accosted us both with courtesy, seemed immediately to enter into our...

. The Last Man. Chapter 24. Chapter 24.

Our escort had been directed to prepare our abode for the night at the inn, opposite the ascent to the Castle. We could not again visit the halls and familiar chambers of our home, on a mere visit. We had already left for ever...

. The Last Man. Chapter 15. Chapter 15.

I returned to my family estate in the autumn of the year 2092. My heart had long been with them; and I felt sick with the hope and delight of seeing them again. The district which contained them appeared the abode of every kindly...

. The Last Man. Chapter 21. Chapter 21.

Hear you not the rushing sound of the coming tempest? Do you not behold the clouds open, and destruction lurid and dire pour down on the blasted earth? See you not the thunderbolt fall, and are deafened by the shout of heaven that follows...

. The Last Man. The Last Man.

The last man! I may well describe that solitary being's feelings, feeling myself as the last relic of a beloved race, my companions extinct before me.' Mary Shelley, Journal (May 1824). Best remembered as the author of Frankenstein, Mary Shelley wrote The Last Man eight years later, on returning to England from Italy after her husband's death. It is the twenty-first century, and England is a republic governed by a ruling elite, one of whom, Adrian, Earl of Windsor, has introduced a Cumbrian boy to the circle. This outsider, Lionel Verney, narrates the story, a tale of complicated, tragic love, and of the gradual extermination of the human race by plague. The Last Man also functions as an intriguing roman à clef, for the saintly Adrian is a monument to Percy Bysshe Shelley, and his friend Lord Raymond is a portrait of Byron. The novel offers a vision of the future that expresses a reaction against Romanticism, as Shelley demonstrates the failure of the imagination and of art to redeem her doomed characters.

. The Last Man. Chapter 12. Chapter 12.

During this voyage, when on calm evenings we conversed on deck, watching the glancing of the waves and the changeful appearances of the sky, I discovered the total revolution that the disasters of Raymond had wrought in the mind of my sister. Were they...

. The Last Man. Chapter 29. Chapter 29.

Now—soft awhile—have I arrived so near the end? Yes! it is all over now—a step or two over those new made graves, and the wearisome way is done. Can I accomplish my task? Can I streak my paper with words capacious of the grand conclusion?...

. The Last Man. Chapter 10. Chapter 10.

Thus sad and disarranged were the thoughts of my poor sister, when she became assured of the infidelity of Raymond. All her virtues and all her defects tended to make the blow incurable. Her affection for me, her brother, for Adrian and Idris, was...

## **SHORT CIRCUIT COORDINATION STUDY ARC FLASH HAZARD ANALYSIS**

### **Short Circuit Coordination Study vs. Arc Flash Hazard Analysis**

#### **1. What is a Short Circuit Coordination Study?**

A short circuit coordination study analyzes the electrical system to determine the proper coordination of protective devices (e.g., circuit breakers, fuses) to prevent dangerous faults and ensure the safety of personnel and equipment. It involves calculating fault currents, determining device ratings, and verifying the proper sequencing and clearing of faults.

#### **2. What is an Arc Flash Hazard Analysis?**

An arc flash hazard analysis evaluates the potential for an arc flash incident to occur and the severity of its effects on nearby personnel. It considers the fault current, equipment design, and worker proximity to determine the arc flash boundary and energy levels. This analysis helps determine appropriate personal protective equipment (PPE) and work practices to mitigate arc flash hazards.

#### **3. Do I Need Both a Coordination Study and an Arc Flash Analysis?**

Yes. Both studies are essential for electrical safety and compliance with industry standards. A short circuit coordination study ensures proper electrical system protection, while an arc flash hazard analysis identifies potential hazards and

provides recommendations for mitigation.

#### **4. How Do I Conduct a Short Circuit Coordination Study?**

- Gather equipment data (e.g., transformers, breakers, motors)
- Calculate fault currents at various points in the system
- Analyze protective device characteristics (e.g., trip curves, interrupting capacity)
- Verify coordination and adjust device settings if necessary

#### **5. How Do I Conduct an Arc Flash Hazard Analysis?**

- Determine arc flash potential using available software or calculation methods
- Establish arc flash boundaries and energy levels
- Identify required PPE and work practices
- Implement training programs and establish safety protocols