FG-COMPASS Manual

Furtado, Ovande Jr Jere Gallagher

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Preface

Fundamental Movement Skills (FMS) lie at the heart of children's overall development, serving as the building blocks for a lifetime of active and healthy living. The Furtado-Gallagher Children Observational Movement Pattern Assessment System (FG-COMPASS) was created to provide a user-friendly, evidence-based method for assessing these skills in children aged 5 to 10 years. Building upon well-established theories and previous research in motor development, this manual offers educators, researchers, coaches, and healthcare professionals a clear framework for understanding, administering, and interpreting the FG-COMPASS.

Download the Manual

A Journey of Research and Practice

Over the past decade, considerable effort has been devoted to refining the FG-COMPASS to ensure that it is practical, psychometrically sound, and accessible to both novice and expert raters. Early work focused on establishing expert-rater agreement and verifying the instrument's inter- and intra-rater reliability, ensuring that FG-COMPASS scores accurately represent a child's skill proficiency. Subsequent investigations addressed the addition of new locomotor tasks—such as the vertical jump and gallop—and confirmed that these expanded scales maintained the high reliability and consistency standards set by the original assessment. Through these enhancements, the FG-COMPASS offers a comprehensive view of key FMS that are commonly taught and developed across preschool and elementary-age programs.

Bridging Theory and Practice

While multiple FMS assessments exist, many either demand extensive training and video review or else focus narrowly on specific tasks. By drawing on both the composite decision-tree approach and well-established developmental sequences, the FG-COMPASS strikes a balance: It narrows down each skill to a few critical performance criteria yet gives raters the information needed to classify children's proficiency levels accurately and consistently. This streamlined design makes it more feasible for use in real-world settings, such as physical education classes, sports clinics, and recreational programs—environments in 'which time and resources are often limited.

Supporting All Learners

One of the central aims of this tool is to facilitate early detection of children who may require additional support in mastering fundamental movement skills. Research consistently links the quality of FMS to positive outcomes in physical health, cognitive development, and social-emotional well-being. By equipping practitioners with the means to detect deficits early on—and to monitor progress over time—the FG-COMPASS fosters an inclusive environment where instruction can be tailored to each child's unique developmental trajectory.

How to Use This Manual

This manual is designed with clarity and practicality in mind. In the opening chapters, readers will find an overview of core concepts in FMS development, along with the theoretical underpinnings of the FG-COMPASS. Subsequent sections provide step-by-step administration procedures, including detailed rating scales, setup instructions, and scoring guidelines for each of the ten FMS evaluated. The appendices contain testing protocols and sample group record forms to ensure smooth execution, whether assessments are conducted live or via video review.

Acknowledgments

The creation and refinement of the FG-COMPASS would not have been possible without the dedication of numerous colleagues, research assistants, and educators who contributed their time and expertise. Their insightful feedback has helped shape an assessment tool that balances scientific rigor with everyday utility. Special thanks go to the children, parents, teachers, and administrators who allowed us to pilot-test the FG-COMPASS in diverse settings, providing invaluable data that guided ongoing improvements.

In addition to the many individuals who contributed to the development of the FG-COMPASS, I wish to express my deepest admiration and gratitude to my mentor and graduate advisor, Dr. Jere D. Gallagher. Dr. Gallagher was a distinguished professor and associate dean at the University of Pittsburgh's School of Education, renowned for her expertise in child development and motor learning. She dedicated over 25 years to directing the Kinder Kinetics Program, now known as "Pitt's Kids: Honoring the Vision of Dr. Jere Gallagher," nationally recognized for its innovative approach to promoting healthy movement among children aged 3 to 12.

Dr. Gallagher's commitment to student advocacy and inclusive education left an indelible mark on all who had the privilege of working with her. Her mentorship was characterized by unwavering support, insightful guidance, and a genuine passion for fostering growth in others. She was instrumental in shaping my academic journey, encouraging a balance of scientific rigor and compassionate practice that continues to influence my work today.

Her legacy endures through the many students she mentored, the programs she established, and the lives she touched. It is with profound respect and heartfelt appreciation that I dedicate this work to her memory.

Collaborative Efforts

The FG-COMPASS is the result of collaborative efforts with many individuals and organizations. I extend my gratitude to the following contributors:

Dr. Jere D. Gallagher, Oldemar Mazzardo, Fabio Fontana, Wagner de Campos, Priscila Cacola, Lino Perez, Mackinsey Woolever, Comfort Mokgothu, Hasan F. Mavi, Mariah Bolin, Takato Sacurai, Lawrence Ho, Thomas Cunningham, Alan Chapla.

I also have many institutions to thank for their support, including the University of Pittsburgh, Eastern Illinois University, California State University - Northridge, the Western Paraná State University, and the Paraná Federal University. Their commitment to advancing research in motor development has been invaluable.

Concluding Remarks

The FG-COMPASS is more than just an assessment tool; it is a commitment to understanding and nurturing the fundamental movement skills that are essential for children's growth and development. By providing a clear, evidence-based framework for assessing these skills, we empower educators and practitioners to make informed decisions that can positively impact children's lives.

As we look to the future, I encourage all users of the FG-COMPASS to embrace its potential not only as a measurement tool but also as a means of fostering a deeper understanding of motor development. By engaging with the assessment process, practitioners can gain insights into each child's unique strengths and challenges, allowing for tailored interventions that promote skill acquisition and overall well-being.

The FG-COMPASS is designed to be adaptable, allowing for its application in various contexts, from physical education classes to clinical settings. It is my hope that this manual will serve as a valuable resource for practitioners seeking to enhance their understanding of motor development and improve their assessment practices.

In presenting this manual, my hope is that it will serve as both a resource and a catalyst, helping practitioners not only assess motor skills more accurately but also better understand how to nurture each child's potential. By investing in high-quality FMS assessment, we invest in the holistic growth of children, setting them on a path toward vibrant, active lives.

Ovande Furtado, Jr., Ph.D. April 2025

1 Introduction

2 Purpose

This manual provides users with the knowledge and skills to effectively administer, score, and interpret the Furtado-Gallagher Children Observational Movement Pattern Assessment System (FG-COMPASS), ensuring its practical application and reliability in various settings.

The FG-COMPASS an observational movement pattern assessment system designed to evaluate fundamental movement skills (FMS) in children aged 5 to 10 years. It aims to provide a more efficient and practical alternative to existing FMS assessment tools, such as the Test of Gross Motor Development-2 (TGMD-2), which is widely considered the "gold standard" in this area. The FG-COMPASS was developed by combining aspects of the composite 3-stage approach and the observational plan approach to provide a practical and efficient way for practitioners to assess FMS in various settings.

3 Overview of the FG-COMPASS

The FG-COMPASS is an observational assessment tool developed to evaluate fundamental movement skill (FMS) development in children 5 to 10 years old (Furtado & Gallagher, 2018). It was developed by combining aspects of the composite 3-stage approach (Gallahue & Ozmun, 2002) and the observational plan approach (Haywood & Getchell, 2019) to provide a practical and efficient way for practitioners to assess FMS in various settings (Furtado & Gallagher, 2012).

The FG-COMPASS assesses ten FMS, divided into two subtests: a locomotor subtest with five skills (skipping, hopping, horizontal jumping, vertical jumping, and galloping) and an object manipulation subtest with five skills (batting, stationary dribbling, kicking, throwing, and catching). Unlike other FMS assessment tools that use multiple performance criteria for each skill, the instrument relies on only three key performance criteria selected from validated and hypothesized developmental sequences (Furtado & Gallagher, 2018). This allows for quicker and more practical testing administration compared to more complex assessment instruments(Perez, 2024).

The instrument uses a process-oriented, criterion-referenced design, focusing on the quality of movement rather than quantitative measures(Perez, 2024). It employs a composite decision tree approach (see Appendix A), where users make sequential decisions based on the presence or absence of specific performance criteria to classify children into levels 1 through 4. This approach aims to simplify the assessment process while providing valuable information about a child's FMS development, which can be used to evaluate the effectiveness of instructional programs and monitor/detect deficits in FMS development(Perez, 2024).

3.1 Rating Scales

The FG-COMPASS was developed using a Composite Decision Tree approach (see Figure 3.1), which combines elements of the Observational Plan (OP)(Haywood & Getchell, 2019) and the Three-Stage (TS) (McClenaghan & Gallahue, 1978)models for FMS assessment (Furtado, 2009). The word composite refers to the practice of assessing FMS as a whole, rather than by body parts (i.e., arms, legs, torso, etc.). Even though individual body parts are considered with the composite method, the final score denotes proficiency levels for the entire body.

The OP model is a method for assessing motor skill development, particularly in FMS, by systematically observing and recording movement patterns. It emphasizes the importance of

a detailed and methodical process to ensure accuracy and reliability of observations. The TS model is a framework for understanding motor skill development, emphasizing the progression from initial attempts at a skill to mature execution. It limits the classification of skills to three stages (initial, elementary, and mature) and selects only key performance criteria for the assessment tasks (Furtado & Gallagher, 2012). An example of a performance criteria assessed in the FG-COMPASS is the "follow through" when kicking a stationary ball.

The composite decision trees (CDTs) for each assessment task in the FG-COMPASS is presented in a decision-tree format to facilitate assessment. Each CDT has three stage levels: a discriminatory-decision level (DDL), a confirmatory-decision level (CDL), and an outcome-decision level (ODL).

The DDL has a single decision node which comprises of one key performance criterion that is intended to discriminate between levels 1 and 4. The CDL is comprised of two performance criteria, each with the intention to confirm whether a performer is level 1 (if NO was selected in the DDL) or level 4 (if YES was selected in DDL). In the case of failing to confirm levels 1 and 4, they default to levels 2 and 3, respectively.

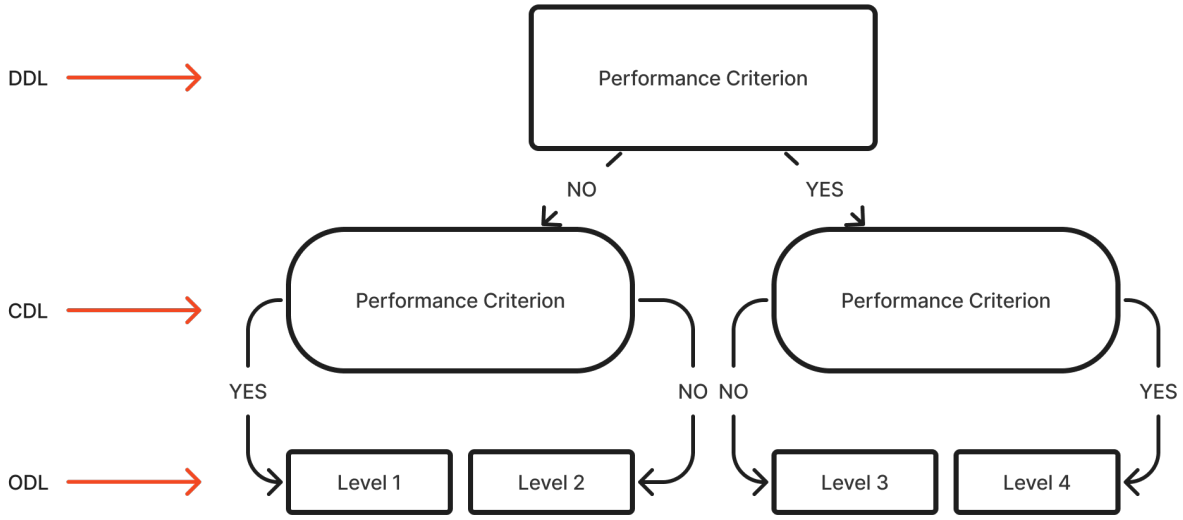


Figure 3.1: Framework model for the decision trees of the FG-COMPASS

The discriminatory-decision level holds a single decision-node that contains a performance criterion that strongly discriminates between levels 1 and 4 (Furtado & Gallagher, 2012). The confirmatory-decision level holds two decision-nodes that confirm the child's skill level. The right-side confirmatory-decision node confirms the whether the child is at level 4, while the left confirmatory-decision node is used to confirm a level 1 skill proficiency. The outcome-decision level provides the final classification of the child's skill level, from 1 (least proficient) to 4 (most proficient).

By using this composite decision-tree approach, the FG-COMPASS aims to provide a more

practical approach for assessing FMS development; thus, bypassing the need to videotape skill performance. This because it limits the number of performance criteria and classification stages compared to other FMS assessment tools (Furtado & Gallagher, 2012).

3.2 The Importance of Fundamental Movement Skill Development

Fundamental movement skill development in children is pivotal to their comprehensive growth and overall well-being. FMS encompasses fundamental motor activities such as running, jumping, and throwing, which engage the large muscle groups of the body. These skills are crucial for physical, cognitive, and social development.

3.2.1 Physical Activity and Health

Multiple studies show positive links between FMS proficiency and physical activity (PA) in children aged 3-10. For instance, DuBose et al. (2018) found children engaged in more moderate to vigorous PA scored higher in motor skills on the MABC-2. Additionally, Giuriato et al. (2022) noted that increased lean body mass predicts gross motor coordination (GMC), suggesting GMC development boosts healthy body composition. Balakrishnan & Ramalingam (2023) reported a correlation between sensory processing abilities and gross motor skills in ages 7-10, indicating improvement in motor skills may enhance sensory processing and physical activity engagement. FMS and PA relationship is reciprocal, as PA aids motor skill development. Fu et al. (2022)'s 12-week functional training program showed improved GMC, fitness, and sensory integration in healthy Chinese children aged 5–6, indicating that targeted interventions positively impact overall fitness. Ma & Luo (2023) found a strong association between physical activity and both locomotor and object control skills in preschoolers. This suggests promoting physical activity enhances various gross motor skills, fostering a positive cycle for children's health. Overall, these studies indicate that FMS are vital in influencing PA levels and health in children aged 3-10. The reciprocal relationship emphasizes the need to promote both FMS development and PA in early childhood to foster healthy habits and overall well-being.

3.2.2 Cognitive development

Numerous studies indicate substantial positive links between gross motor skills and cognitive development in children. For example, Veldman et al. (2019) found a connection in Australian toddlers, while Zuccarini et al. (2020) noted cascading effects from early motor skills on later cognitive abilities. This implies that gross motor proficiency may influence cognitive outcomes during early childhood transition. Additionally, research connects gross motor abilities with cognitive domains in children aged 3-10. Fathirezaie et al. (2022) found significant ties between executive functions, like inhibition and working memory, and gross motor skills in rural children ages 8-10. This suggests that better motor skills may enhance executive functions

critical for academic success. Similarly, Geertsen et al. (2016) showed that both fine and gross motor skills correlate positively with cognitive functions and academic performance in preadolescents, emphasizing the importance of motor skill development for cognitive and educational outcomes. Moreover, studies have investigated factors affecting the motor-cognitive relationship in children aged 3-10. Viegas et al. (2021) discovered that preschoolers with low physical activity and cognitive function, especially girls, would likely have delayed gross motor skills. They concluded that these factors independently predict skill delays, indicating a direct link between motor skills and cognitive development.

The bidirectional influence of motor and cognitive skills in children aged 3-10 is significant; gross motor skills affect cognitive development, and cognitive abilities facilitate motor skill acquisition. Capio et al. (2022) established that in 5.84-year-old children, object control skills and verbal working memory are linked, illustrating the intricate relationship between physical, motor, and cognitive growth. Additionally, Bedford et al. (2015) found that early gross motor skills forecast language development in children with autism, suggesting that motor proficiency impacts other developmental areas like language acquisition. In conclusion, research strongly indicates that gross motor skill proficiency is vital for cognitive development across domains in children aged 3-10. Promoting motor skill development may yield extensive benefits for holistic development and academic readiness during early and middle childhood.

3.2.3 Social development

Studies show a positive link between gross motor skills and social development in children aged 3-10. Šalaj & Masnjak (2022) found a weak correlation between motor skills and social-emotional functioning in preschoolers, underscoring the importance of gross motor skill development in enhancing children's social and emotional growth. Gross motor skills also significantly affect children's emotional understanding and social interactions. Zhang et al. (2023) discovered that object control skills predict emotional comprehension in ages 3-6, suggesting that improving these skills aids in interpreting emotions vital for social engagement. This study highlights the interconnectedness of motor, cognitive, and socio-emotional development in early childhood. Moreover, gross motor skills influence peer interactions and social competence. Redondo-Tebar et al. (2021) noted that higher motor competence is associated with better health-related quality of life, especially in self-esteem and friendships among typically developing children. Enhanced motor skills foster more positive social experiences and confidence in interactions. Furthermore, Crane et al. (2023) studied motor competence in 8-year-olds, revealing a complex relationship between motor skills and social factors.

Lastly, the relationship between gross motor skills and social development varies with age and other influences. Peyre et al. (2019) found that cognitive factors predict changes in motor skills from ages 3 to 6, indicating a reciprocal relationship that can impact social growth. Barnett et al. (2016) identified age, gender, and activity levels as significant influences on gross motor competence. These findings call for a broad perspective in examining how motor skills interplay with social development.

In conclusion, the relationship between gross motor skills and social development in 3-10-year-olds is complex and changes over time. Research indicates that improving gross motor skills positively affects emotional understanding, peer interactions, and overall competence. However, this relationship varies due to multiple factors, highlighting the need for comprehensive support in child development.

3.3 Uses of the FG-COMPASS

3.3.1 Evaluating the effectiveness of instructional programs

Evaluating the effectiveness of instructional programs aimed at improving children's movement skills is a critical application of the FG-COMPASS. By using this tool to assess student outcomes before and after implementing new educational initiatives, professionals can determine whether their interventions are having a positive impact on student skill learning. This information enables teachers to refine their instruction, make adjustments as needed, and ultimately improve the overall quality of education provided to their students. Furthermore, evaluating program effectiveness also allows educators to share best practices with colleagues, promoting a culture of collaboration and continuous improvement within schools.

3.3.2 Monitoring and Detecting Deficits

Monitoring the longitudinal development of students' FMS is essential in educational settings, enabling professionals to systematically track progress and make evidence-based decisions regarding instructional strategies. Regular assessment of FMS allows practitioners to identify specific areas where children may require additional support or demonstrate mastery in FMS, facilitating the customization of teaching methods to address each student's distinct developmental needs. Additionally, detecting deficits in FMS development allows professionals to provide targeted interventions, helping students catch up and overcome challenges. Early identification enables teachers to modify their instruction, making it more inclusive and accessible, thereby contributing to a more positive and supportive learning environment where every child feels valued and encouraged to succeed.

4 Content Validity

To establish the content validity of the FG-COMPASS, we undertook a systematic evaluation process led by experts. This approach combined quantitative ratings with valuable qualitative feedback (Furtado, 2004). We began by selecting a panel of 20 content experts, which included eight university professors and twelve experienced physical education teachers. Their extensive theoretical knowledge and practical experience made them well-equipped to provide insightful judgments. We initiated contact with these experts using a standardized protocol, starting with phone calls followed by detailed email instructions to ensure clarity.

We created an Internet-based item review form to gather evidence at both the item and test levels. Experts were asked to evaluate each proposed test item—targeting both movement concepts and fundamental movement skills—using a 4-point Likert scale that ranged from "not important at all" to "very important." Additionally, a 5-point scale was employed at the test level to assess how well the item pool aligned with the overall purpose of the test and its representativeness in relation to content taught in physical education. This dual approach allowed us to thoroughly scrutinize both individual components and the integrated set of items.

When it came to data analysis, we employed both quantitative and qualitative methods. We calculated descriptive statistics, such as percentage distributions and median scores, to see if the items met our acceptance criteria—specifically, we set a threshold that required at least 67% of respondents to rate an item as "very" or "moderately" important. Alongside this, we carefully analyzed the qualitative comments from the experts to identify items that might have been overly specific, too easy, or not aligned with the intended domain. This careful and comprehensive analysis guided our decisions on whether to revise, collapse, or exclude certain items.

In the end, this iterative refinement process enabled us to adjust the initial pool of 31 items based on the expert input we received. The combination of expert feedback and statistical analysis ensured that the final test content accurately represented the domains of movement concepts and fundamental movement skills as defined in the National Standards for Physical Education. This thorough process not only provided strong initial support for the content-related validity of our assessment tool but also highlighted its relevance for tracking individual progress, evaluating instructional effectiveness, and pinpointing specific deficits in motor skill development.

5 Expert-Rater Agreement

Expert-rater agreement is a crucial aspect of establishing the reliability and validity of any assessment tool, including the FG-COMPASS. In the context of the FG-COMPASS, expert-rater agreement refers to the level of consistency and agreement among trained raters when scoring children's performance on the assessment tasks. This is particularly important because the FG-COMPASS relies on observational assessments, which can be subjective and influenced by individual raters' interpretations.

The evolution of the FG-COMPASS has been marked by continuous efforts to enhance its reliability and utility as an observational tool for assessing fundamental movement skills in children. Early work by Furtado & Gallagher (2012) laid the foundation by demonstrating acceptable expert-rater agreement on the original set of 11 rating scales, with weighted kappa values ranging from 0.51 to 0.85 (mean = 0.71). These findings established a solid basis for the instrument's reliability and led to targeted refinements in subsequent research.

In their follow-up investigation, Furtado & Gallagher (2018) revisited and modified the original scales, resulting in improved agreement for most measures. Their study confirmed that four of the revised scales achieved "good" to "very good" expert-rater agreement. In contrast, the scales for side sliding and leaping—due to persistent subjectivity and inconsistency—were removed from the test.

Building on this extensive groundwork, Perez (2024) extended the instrument by investigating the inclusion of two new locomotor skills—vertical jump and gallop—to further improve the FG-COMPASS. In their study, 60 children aged 5–10 years were filmed performing these new skills, and an expert used newly developed rating scales, based on literature-supported performance criteria, to classify the performances. Thirty undergraduate raters underwent comprehensive training and then rated a set of video clips. The expert-non-expert agreement for the new vertical jump scale was exceptionally high (weighted kappa = 0.96, ICC = 0.98), while the gallop scale also demonstrated strong agreement (weighted kappa = 0.89, ICC = 0.94). Inter-rater reliability among non-expert raters was very good for vertical jump (mean kappa = 0.92) and reached a moderate level for gallop (mean kappa = 0.78), with intra-rater reliability similarly robust for both skills.

Collectively, the findings of these studies indicate that the FG-COMPASS can be relied upon for consistent classification decisions. The initial work by Furtado and Gallagher (2012, 2018) established strong expert-rater agreement and consistency across the original skills, and the subsequent inclusion of vertical jump and gallop, as investigated by Perez and Furtado (2024), expands the scope of the locomotor subscale without compromising the instrument's reliability.

This progression underscores the FG-COMPASS's potential as a practical and objective tool for assessing FMS development in children, supporting its adoption in both research and educational contexts.

6 Inter-Rater Reliability

Inter-rater reliability for the FG-COMPASS has been examined and re-examined through multiple studies. In the initial work by Furtado & Gallagher (2012), raters, who received standardized training, independently coded videotaped fundamental movement skills. Weighted kappa analyses revealed agreement values ranging from 0.51 to 0.85 (mean = 0.71), establishing an already "good" level of inter-rater consistency for the original set of rating scales.

Finally, Woolever (2016) investigated live assessments (as opposed to video-based ones) and found that inter-rater reliability remained "good," albeit somewhat lower than the strong values observed under controlled video conditions. Even so, their results supported the FG-COMPASS as a practical tool for real-world educational or research settings, where live evaluations are often needed.

A subsequent refinement by Furtado & Gallagher (2018) involved slight revisions to the locomotor domain. Once again, multiple raters underwent systematic training and then independently scored children's recorded performances. Here, the combined locomotor and manipulative subtests yielded an intraclass correlation coefficient (ICC) approaching 0.89, indicating improved rater consensus following the scale modifications.

More recently, Perez (2024) introduced two new locomotor skills—vertical jump and gallop—to the FG-COMPASS. A cohort of non-expert raters was trained on these novel scales and asked to evaluate videotaped performances. The vertical jump scale demonstrated notably high inter-rater reliability (mean weighted kappa = 0.92; ICC = 0.98), while the gallop scale, though slightly lower, still achieved robust agreement (mean weighted kappa = 0.78; ICC = 0.95).

Taken together, these studies consistently confirm that trained raters can achieve sound inter-rater reliability when using the FG-COMPASS to assess a broad spectrum of FMS in children, whether under controlled video conditions or in live evaluations.

7 Intra-Rater Reliability

Intra-rater reliability for the FG-COMPASS has been documented in multiple studies using a retest or repeated-rating format, wherein the same raters evaluated children's performances on two different occasions and their initial and follow-up ratings were compared. In Woolever (2016), raters used the FG-COMPASS in live physical education settings and then repeated their evaluations after a short delay. Weighted kappa statistics across locomotor and manipulative tasks ranged from about 0.70 to 0.85, indicative of "good" or "excellent" reproducibility for individual raters under real-world conditions.

Similarly, Furtado & Gallagher (2018) employed a video-based approach in which raters first scored children's recorded performances and then returned after an interval of approximately one week to re-score the same video clips in a randomized order. Both weighted kappa and intraclass correlation coefficient (ICC) analyses confirmed "good" to "excellent" agreement between the two rounds of scoring, typically yielding kappa values above 0.80 and ICCs near or exceeding 0.90 for both locomotor and manipulative components.

More recently, Perez (2024) introduced two new FG-COMPASS scales for vertical jump and gallop and tested intra-rater reliability in a similar fashion. After rating a set of videos, the same raters returned one week later to re-score the same clips, with the mean weighted kappa for vertical jump reaching 0.96 (ICC = 0.98), while gallop obtained 0.85 (ICC = 0.92). Taken together, these findings indicate that once raters have received consistent FG-COMPASS training, they can reliably replicate their own scoring decisions over time, whether the tool is used in controlled video reviews or during live assessments.

8 Concurrent Validity

Concurrent validity is a crucial aspect of establishing the trustworthiness and practical utility of any assessment tool, especially in the field of motor skill development. In assessing fundamental motor skills in children, concurrent validity is particularly important because it ensures that a new assessment tool accurately reflects the child's actual motor abilities, aligning with established benchmarks.

In their study, Woolever (2016) investigated the instrument's concurrent validity by comparing its results to those of the Test of Gross Motor Development–Second Edition (TGMD-2) (Ulrich, 2000). After children's live skill performances were independently assessed with both tools, the researchers used the intraclass correlation coefficient (ICC) and Bland-Altman analysis to evaluate the agreement between their locomotor, manipulative, and total scores.

They found that, for the locomotor subtest (LFMS), the FG-COMPASS and the TGMD-2 demonstrated an ICC of 0.68—considered "good" agreement—while the manipulative subtest (MFMS) reached an ICC of 0.89, classified as "excellent." When combining both subtests into a single total FMS score (TFMS), the ICC remained "excellent" at 0.89. Bland-Altman plots revealed mean biases close to zero for all three categories, indicating minimal systematic differences between the two assessments. Therefore, the FG-COMPASS and the TGMD-2 measure children's gross motor proficiency in a sufficiently similar manner, thus confirming the FG-COMPASS's concurrent validity under live conditions

9 Procedures

10 Introduction

This section includes the Examiner Group Record Forms used to collect FG-COMPASS data. Although performances may be videotaped for subsequent assessment, the FG-COMPASS was developed for live, in situ skill performance evaluation. Test administrators must thoroughly familiarize themselves with the testing protocols before conducting assessments. Currently, only the paper-and-pencil version of the test is available; however, a mobile version will be released shortly.

11 General Instructions

1. Review the questions within the decision tree, ensuring they are consistent with the corresponding illustrations.
2. To promote reliable assessment, evaluate each performer across three trials. The behavior observed should be evident in at least two of the three trials to confirm consistency.
3. Avoid inferring performance levels based on the performer's apparent age, as chronological age is not indicative of optimal performance.
4. During demonstrations, avoid simultaneous speaking and demonstrating. Refrain from providing additional verbal information before or after the demonstration unless specifically prompted (refer to Notes for Examiners), as excessive information may confuse the performer.
5. To improve efficiency, assess three to five children simultaneously. Confirm that each child can view your demonstration and is following the instructions. In this context, demonstrations should be performed only once.

12 Equipment

- 4-inch balls are used for the overhand throw.
- 8-inch balls are used for the catch and kick.
- Small and medium-sized basketballs
- Nerf softballs
- Floor tape
- 4- to 5-inch beanbags
- Plastic cones
- Plastic basket
- Name tags
- Stopwatch

13 Manipulative Subscale

13.1 Overhand Throw

13.1.1 Equipment

- Beanbags
- Basket
- Floor tape

13.1.2 Setup

- Tape a line 20 feet from the wall on the floor.
- Stand about 10 feet from the examinee to get a side view of the action.
- Place a bucket containing several bean bags three feet ahead of the line.

13.1.3 Directions for performers

- I want to see your throw;
- Walk up to the bucket, grab one beanbag, and throw it as hard as you can against the wall without stepping over the line;
- Then do it three more times;
- Watch as I demonstrate.

13.1.4 Notes for examiners

- Give the performer four trials (the first trial is for practice only).
- Do not allow performers to step over the line.

13.1.5 Scale

13.1.6 Developmental Sequences

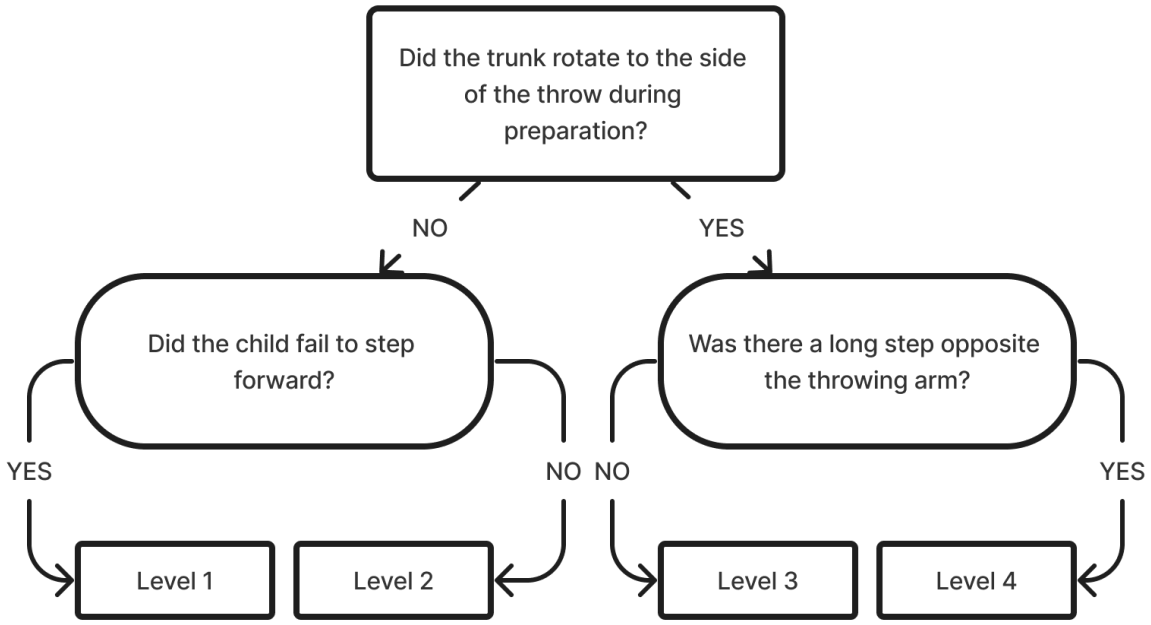


Figure 13.1: Scale for Overhand Throw

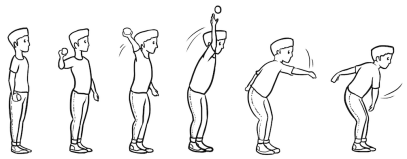
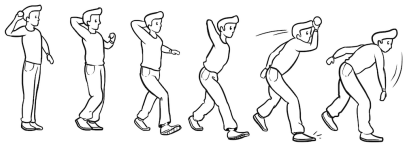
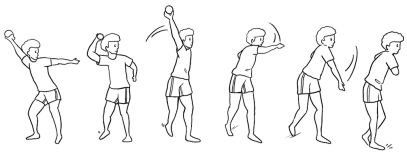
Image	Description
	**Level 1**The trunk faces the target, and there is no step forward. Jumping up and down is not considered a step forward.
	**Level 2**Minimal or no trunk rotation is observed during the preparatory phase. However, a forward step is taken, using either foot.
	**Level 3**The movement involves a trunk rotation to one side and a slight step forward with the opposite leg.

Image	Description
	**Level 4**The trunk rotates to the side with a long contralateral step forward (at least half the performer's height).

13.2 Kick

13.2.1 Equipment

- 8-inch balls
- Floor tape
- Basket

13.2.2 Setup

- Tape a line on the floor 20 feet from the wall (kicking line).
- Stand about 10 feet from the examinee for a side view of the action.
- Have a bucket with several soccer balls inside, placed 3 feet before the kicking line.

13.2.3 Directions for performers

- I want to see your kick.
- Walk up to the bucket, grab a soccer ball, place it on the kicking line, and then kick it against the wall.
- Then, repeat it three more times.
- Watch as I demonstrate.

13.2.4 Notes for examiners

- Give the performer four trials (the first trial is for practice only).
- Sometimes a child runs towards the ball, stops, and then kicks it. This is the same as not taking any steps toward the ball.
- Swinging the body back and forward before the kick is not a complete step.

13.2.5 Scale

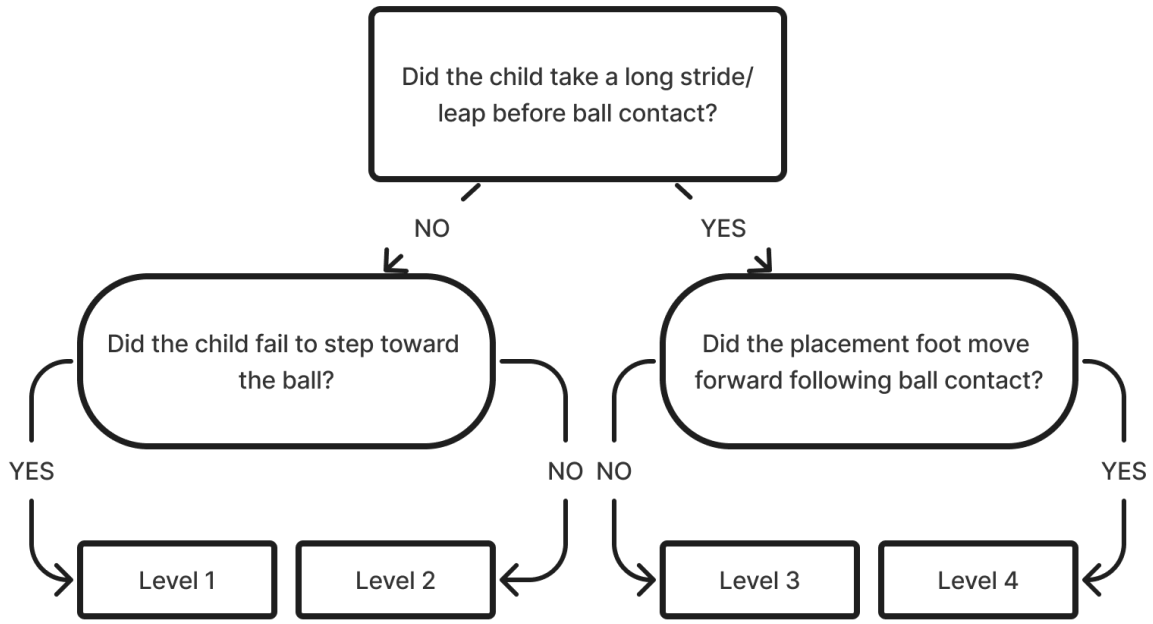


Figure 13.2: Scale for Kick

13.2.6 Developmental Sequences

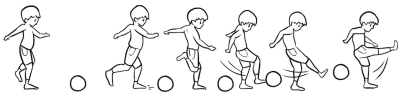
Image	Description
	**Level 1**The child stands behind the ball and kicks it without stepping forward.
	**Level 2**At least one step is taken before kicking the ball without a long stride or leap. It often appears as though the child runs directly through the ball.

Image	Description
	**Level 3**Before kicking, there are a few steps toward the ball with a lengthened stride or jump. However, there is no follow-through after the kick.
	**Level 4**There is a long stride or leap before contacting the ball. After contact, the placement foot continues moving forward.

13.3 Dribble

13.3.1 Equipment

- Small and medium-sized basketballs
- Basket
- Floor tape
- stopwatch

13.3.2 Setup

- Tape a 4' x 4' square on the floor to designate personal space.
- Stand about 6 feet from the examinee.
- Have a bucket with several soccer balls inside, placed 3 feet before the kicking line.

13.3.3 Directions for performers

- I want to see you dribbling a basketball with one hand.
- Try to stay inside the square while dribbling the ball.
- If the ball goes out of bounds, pick it up, return inside the square, and re-start.
- I will tell you when to stop.
- Watch as I demonstrate.

13.3.4 Notes for examiners

- Inquire about the child's preferred foot
- Give the performer a practice trial (about 5 seconds).
- Use a stopwatch to time the child's dribbling for 15 seconds. Stop time if the ball goes out of bounce. Resume timing when the child restarts dribbling.
- Children who can control the ball without looking demonstrate vision-independent control. Otherwise, they are at Level 3

13.3.5 Scale

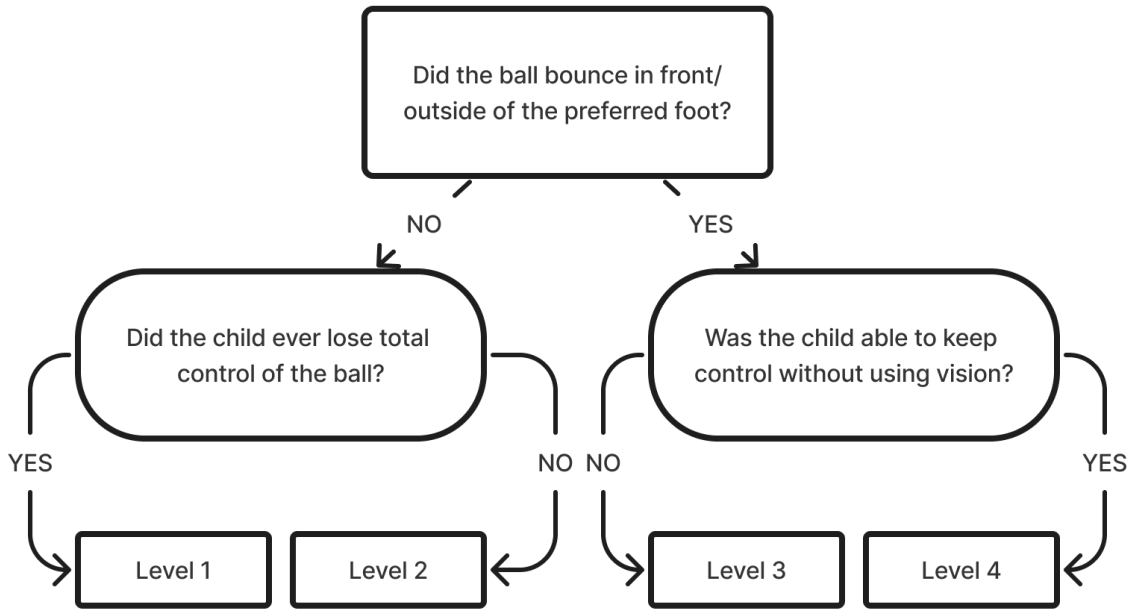
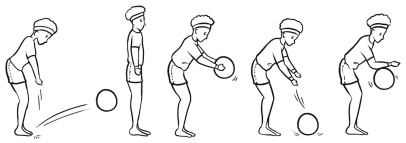
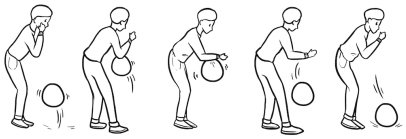
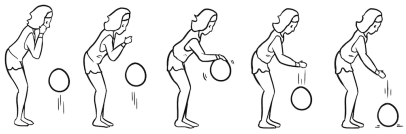
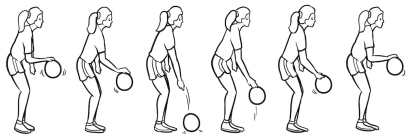


Figure 13.3: Scale for Dribble

13.3.6 Developmental Sequences

Image	Description
	**Level 1**The child struggles to control the ball as it bounces erratically and loses control at least once.
	**Level 2**Despite a lack of control, the child bounces the ball continuously for 15 seconds.
	**Level 3**Vision is used to maintain ball control. Bounces occur in front of or to the outside of the child's preferred foot, and the child has more control over the ball.
	**Level 4**Control is clear, and the child does not rely on vision to maintain ball control.

13.4 Catch

13.4.1 Equipment

- 4- and 8-inch balls
- Floor tape

13.4.2 Setup

- Tape a 4'x4' on the floor to designate personal space.
- Stand about 6 feet from the child.

13.4.3 Directions for performers

- I want to see you catch a ball with two hands.
- Stand anywhere inside the square.

- Watch as I demonstrate.

13.4.4 Notes for examiners

- Give the performer four trials (the first trial is for practice only).
- Use an underhand toss and toss the ball at the child's chest level.
- Repeat any attempt that results from a bad toss (too high/low or to the sides).
- Only assess consistency on the three "valid" tosses.
- If the ball is caught with hands and later brought against the chest, this indicates Level 2.
- A behavior is considered present (answering YES) if observed in at least two trials.
- Use either the 4-inch or 8-inch ball, depending on the child's size and strength. The 4-inch ball is recommended for smaller children.

13.4.5 Scale

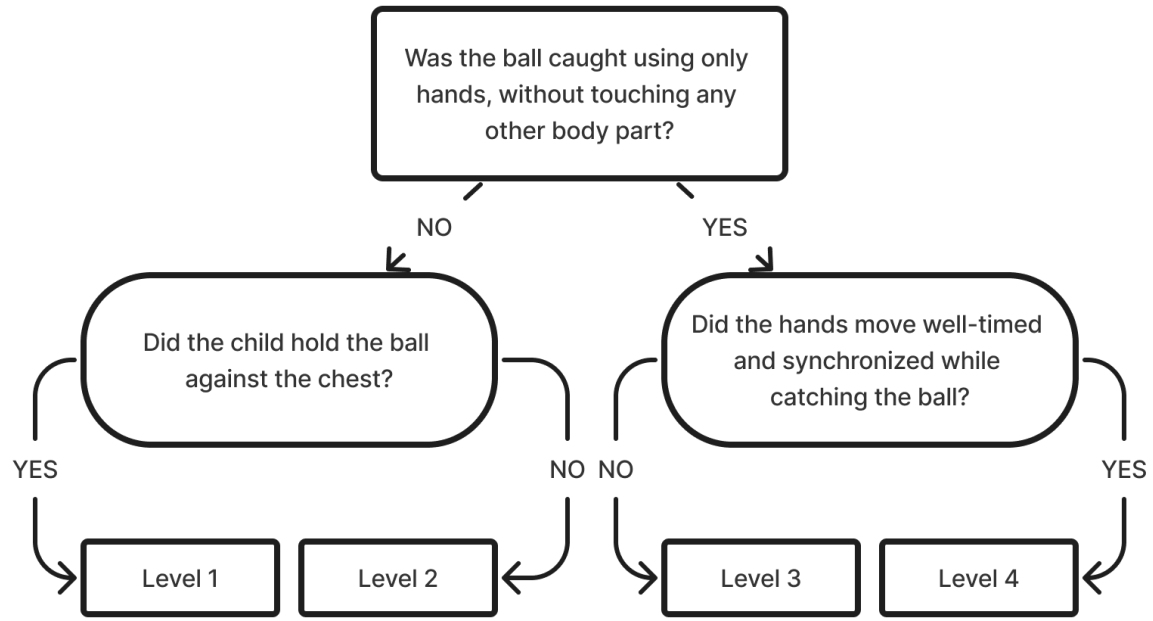
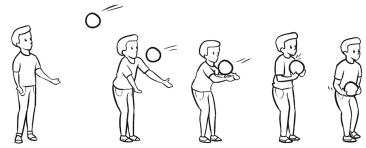
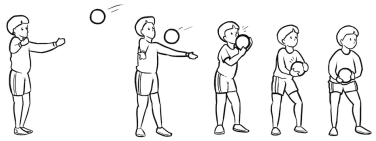
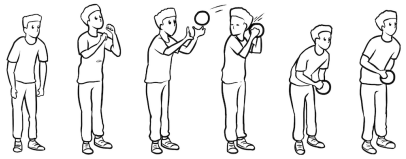
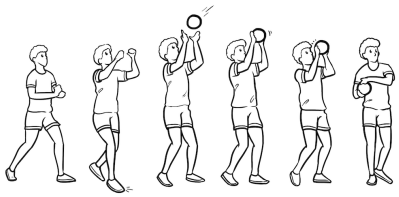


Figure 13.4: Scale for Catch

13.4.6 Developmental Sequences

Image	Description
	**Level 1**The child uses a scooping action to secure the ball against the chest.
	**Level 2**Following a successful catch, the ball is not secured against the chest but touches a body part other than the hands.
	**Level 3**The action lacks coordination, with the ball making contact only with the hands. Players often extend their arms and/or turn their faces to the side.
	**Level 4**Action is well-timed with the simultaneous motion of hands.

13.5 Striking

13.5.1 Equipment

- Lightweight plastic bat
- 4-inch balls
- Floor tape

13.5.2 Setup

- Tape a 4'x4' square on the floor 20 feet from the wall.
- Stand slightly to the side (about 12 feet), facing the child.
- Invert the position (the child faces the opposite wall/open space) if left-handed.

13.5.3 Directions for performers

- I want to see you strike a ball tossed in your direction.
- Try to stay inside the square, but you are free to move as the ball approaches.
- Strike the ball against the wall/open space.
- Watch as I demonstrate.

13.5.4 Notes for examiners

- Give the performer 4 trials (1st trial is for practice only).
- Use an underhand toss.
- Toss the ball just above the child's hip level.
- Repeat any attempt that results from a bad toss (too high/low or to the sides).
- Only assess consistency on the three "valid" tosses.
- A behavior is considered present (answering YES) if observed in at least two trials.

13.5.5 Scale

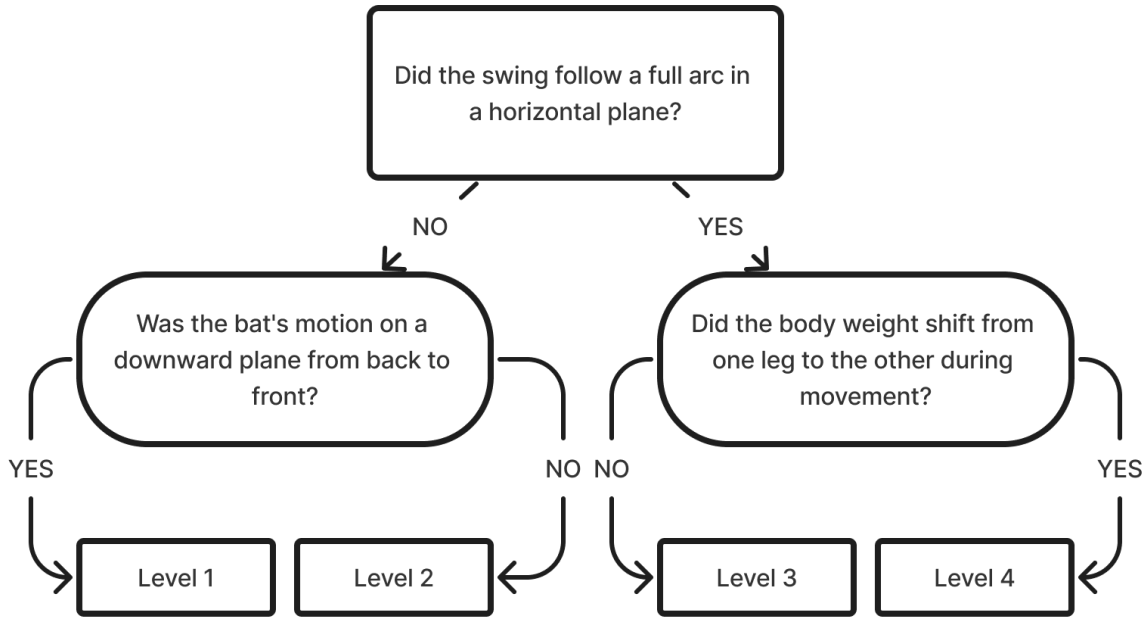
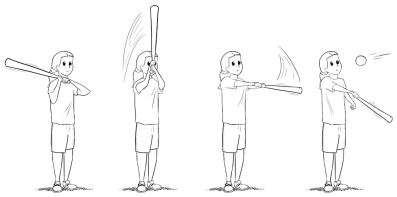
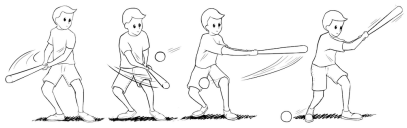
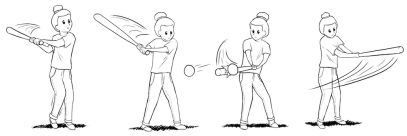
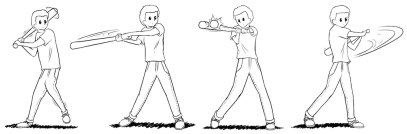


Figure 13.5: Scale for Striking

13.5.6 Developmental Sequences

Image	Description
	**Level 1**The arm action is from back to front and resembles a vertical chopping motion.
	**Level 2**The motion occurs on the horizontal plane, but the action is limited in its amplitude. Often, the bat is held in front of the body.
	**Level 3**The strike does occur in a long (full arc) horizontal plan, but there is no body weight transfer.
	**Level 4**Same as Level 3, but now there is a transfer of body weight in the direction of the strike, which occurs from one to the other leg.

14 Locomotor Subscale

14.1 Hop

14.1.1 Equipment

- Plastic cones
- Floor tape

14.1.2 Setup

- Create a 15-long traveling lane using cones.
- Tape starting and ending lines on the floor.
- Stand perpendicular to the traveling lane to see the starting and ending points.
- Place two cones (each end) 1 foot before the starting and ending lines.

14.1.3 Directions for performers

- I want to see you hopping on one leg.
- Choose your preferred leg to hop.
- Start from that starting line and do not stop until you pass the ending line; then come back using the same leg.
- This is not a race; show your best form.
- Watch as I demonstrate.

14.1.4 Notes for examiners

- Give the performer 4 trials (1st trial is for practice only).
- A behavior is considered present (answering YES) if observed in at least two trials.

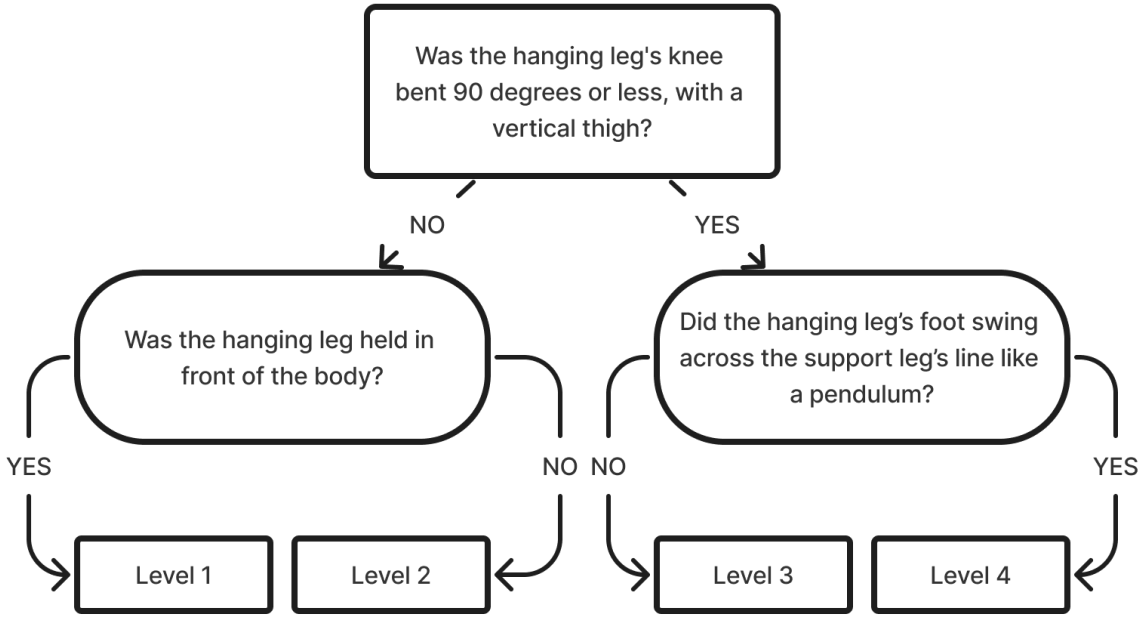


Figure 14.1: Scale for Hop

14.1.5 Scale

14.1.6 Developmental Sequences

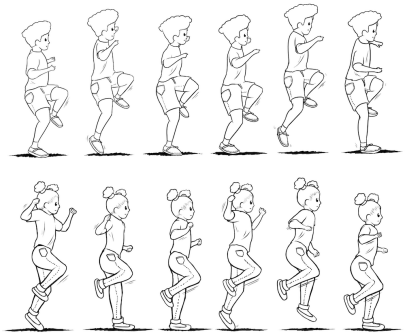
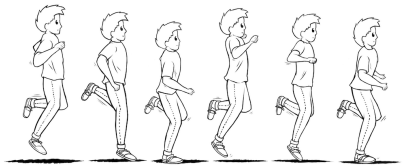
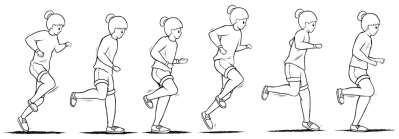
Image	Description
	**Level 1**The suspended leg is held in front of the body.
	Level 2 The knee is flexed with the foot of the hanging leg held near the buttocks.

Image	Description
	**Level 3**The hanging leg is held back with the thigh vertically.
	**Level 4**Similar to Level 3, the foot of the hanging leg crosses the line of the support leg like a pendulum.

14.2 Horizontal Jump

14.2.1 Equipment

- Floor tape
- Plastic cones

14.2.2 Setup

- Tape two parallel lines on the floor two feet apart.
- Stand perpendicular to the jumping action facing the side of the child.

14.2.3 Directions for performers

- I want to see you jumping forward over the second line and using both feet.
- Walk up to the first line and stop completely.
- Then, jump as far as you can over the second line.
- Use both feet when taking off and landing.
- Then, walk back to the starting point and do it again.
- There is no rush; show your best jump.
- Watch as I demonstrate.

14.2.4 Notes for examiners

- Give the performer 4 trials (1st trial is for practice only).
- The child must stop completely behind the line before jumping.

14.2.5 Scale

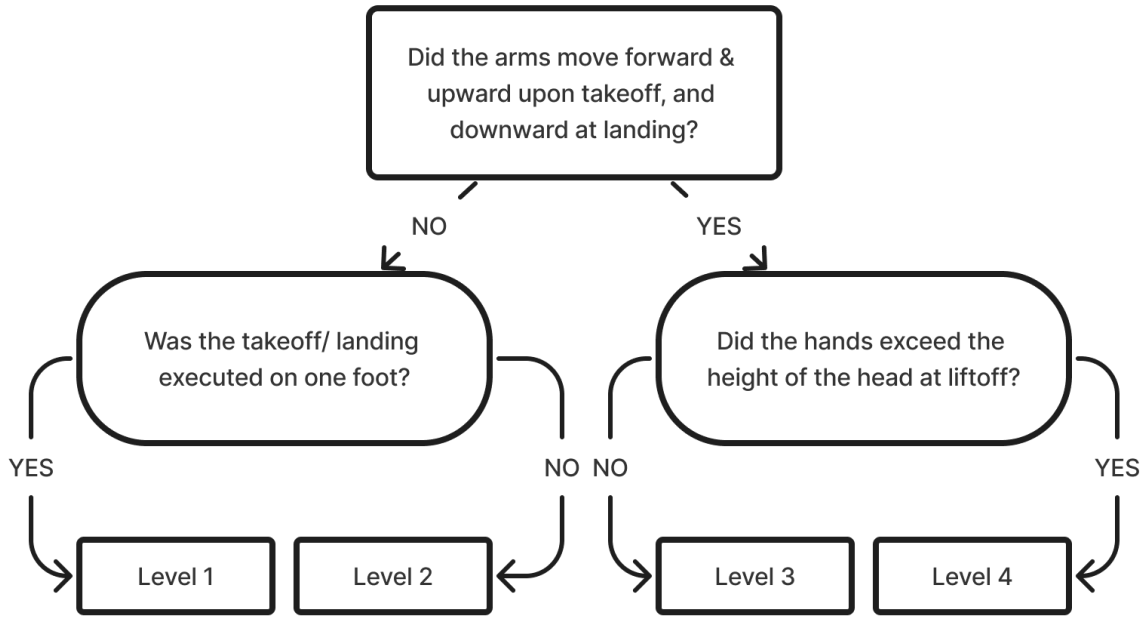
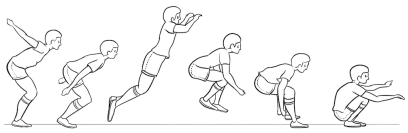


Figure 14.2: Scale for Horizontal Jump

14.2.6 Developmental Sequences

Image	Description
	**Level 1**The arm action is inconsistent with no defined pattern, sometimes even motionless. The takeoff and/or landing is executed on one foot.

Image	Description
	**Level 2**The arm action may still be inconsistent, but the takeoff/landing is executed on both feet.
	**Level 3**The arms move forward and upward during takeoff and then downward at landing. But the hands do not exceed the height of the head at liftoff.
	**Level 4**A pattern similar to Level 3, but the hands are high above the head during the liftoff.

14.3 Skip

14.3.1 Equipment

- Plastic cones
- Floor tape

14.3.2 Setup

- Create a 15-long traveling lane using cones.
- Tape starting and ending lines on the floor.
- Stand perpendicular to the traveling lane so that you can see both the starting and ending points.
- Place two cones (each end) 1 foot before the starting and ending lines.

14.3.3 Directions for performers

- I want to see you skipping.
- Start from that starting line and do not stop until you pass the ending line.
- This is not a race; show your best form.
- Watch as I demonstrate.

14.3.4 Notes for examiners

- Give the performer 4 trials (1st trial is for practice only).
- A behavior is considered present (answering YES) if observed in at least two trials.

14.3.5 Scale

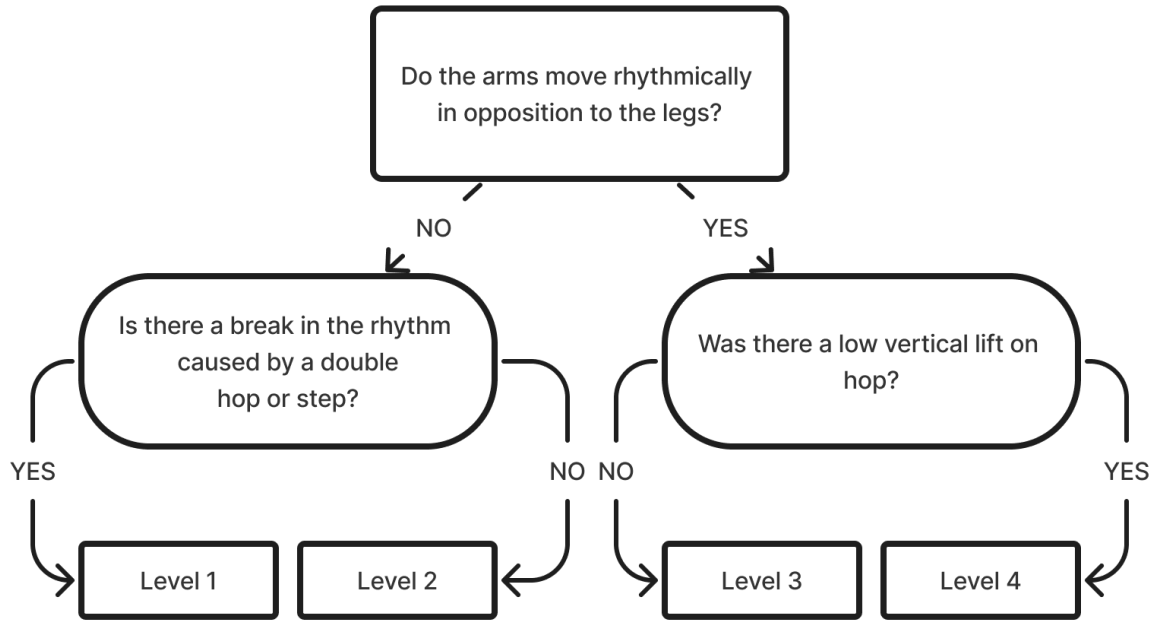


Figure 14.3: Scale for Skip

14.3.6 Developmental Sequences

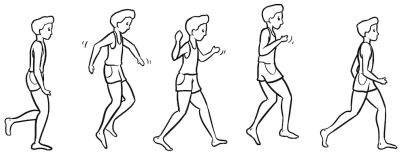
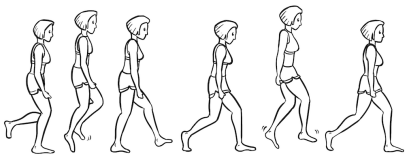
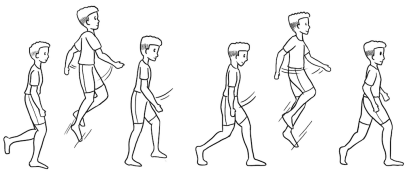
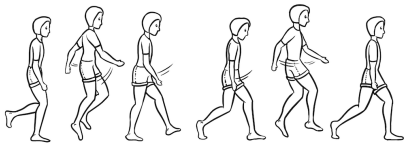
Image	Description
	**Level 1**The arm action is inconsistent, with no defined pattern. A double hop or step affects the rhythm.

Image	Description
	**Level 2**The arm motion may improve, but it is still inconsistent and often motionless. The action of the feet is well coordinated and not affected by a double hop or step.
	**Level 3**Arms move rhythmically in opposition to the legs, but the hop has an exaggerated vertical lift.
	**Level 4**The arms move rhythmically in opposition to the legs, and the vertical lift on the hop is low.

14.4 Vertical Jump

14.4.1 Equipment

- Floor tape

14.4.2 Setup

- Tape four parallel lines on the wall two feet apart.
- Stand perpendicular to the jumping action, facing the side of the performer.
- Ask the child to stand sideways with the dominant arm facing the wall.

14.4.3 Directions for performers

- I want to see you jump high.
- Walk up to the wall and stand sideways.
- When I say so, jump up and touch the highest point on the wall using your dominant hand.
- Use both feet when taking off and landing.

- Then, get back to the starting position.
- There is no rush; show your best jump.
- Watch as I demonstrate.

14.4.4 Notes for examiners

-Give the performer 4 trials (1st trial is for practice only). - Ask the child to show the hand he/she writes with. That will help determine the dominant hand.

14.4.5 Scale

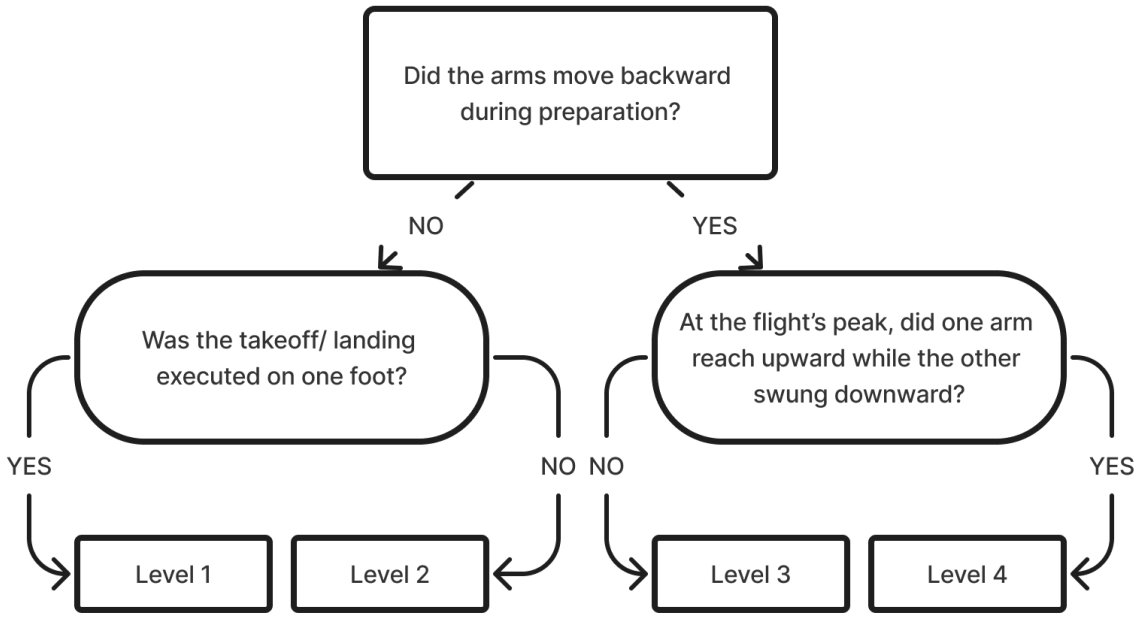
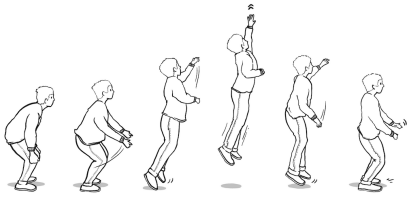
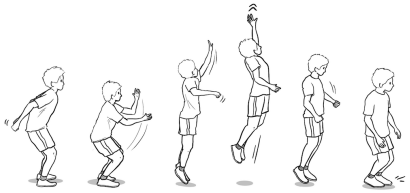
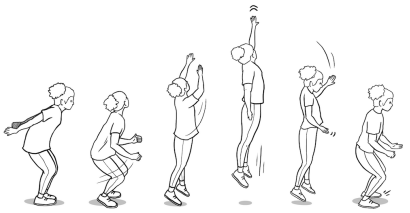


Figure 14.4: Scale for Vertical Jump

14.4.6 Developmental Sequences

Image	Description
	**Level 1**The arms don't move to the rear before taking off; the child takes off and/or lands with one foot.
	**Level 2**Arms don't move to the rear before takeoff; takeoff and landing occur with both feet.
	**Level 3**Arms move to the rear before taking off, but only the reaching arm reaches up.
	**Level 4**Arms move to the rear before taking off; both arms reach up, with the non-reaching arm moving down at the peak of the flight.

14.5 Gallop

14.5.1 Equipment

- Floor tape
- Plastic cones

14.5.2 Setup

- Create a 15-long traveling lane using plastic cones.

- Tape starting and ending lines on the floor.
- Stand perpendicular to the traveling lane so that you can see both the starting and ending points.
- Place two cones (each end) 1 foot before the starting and ending lines.

14.5.3 Directions for performers

- I want to see you galloping.
- Start from the starting line and do not stop until you pass the ending line.
- This is not a race; show your best form.
- Watch as I demonstrate.

14.5.4 Notes for examiners

Give the performer 4 trials (1st trial is for practice only).

14.5.5 Scale

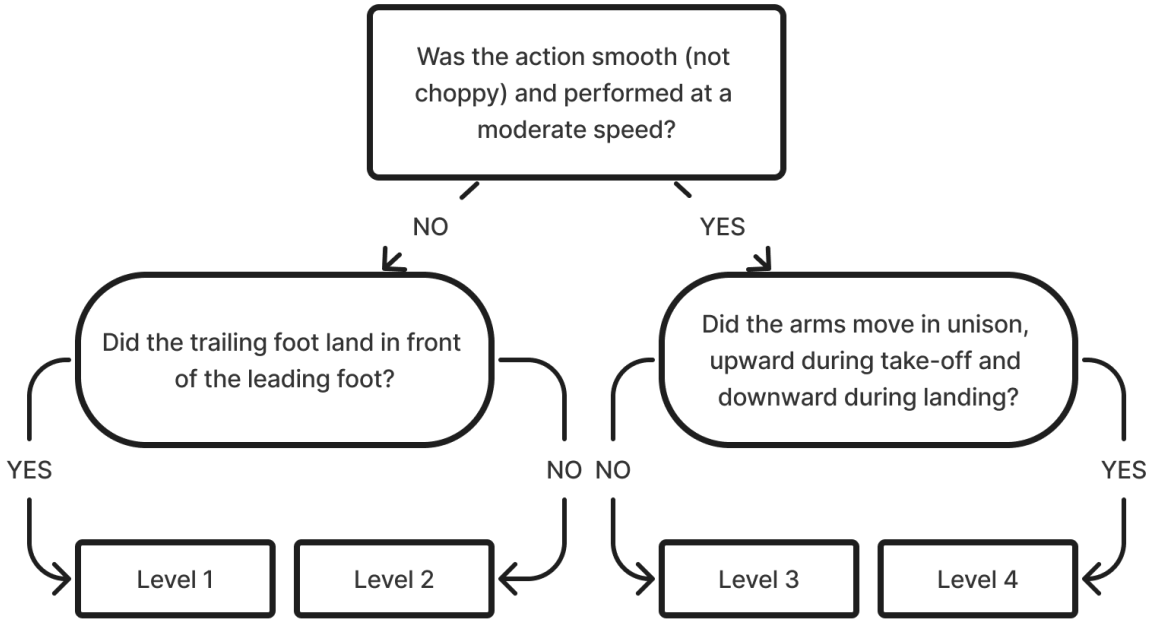
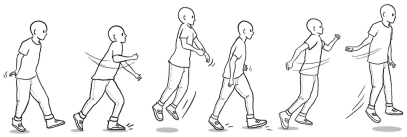
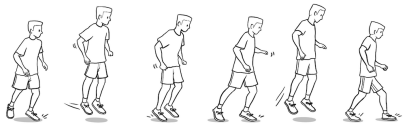
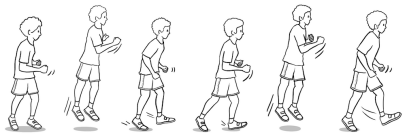


Figure 14.5: Scale for Gallop

14.5.6 Developmental Sequences

Image	Description
	**Level 1**The action is not smooth and seems choppy/stiff. It is often done at a fast tempo, and the trailing foot (the foot that follows) lands in front of the leading foot.
	**Level 2**Still not a smooth action, but while the trailing foot may cross the leading foot during airborne action, it does not land in front of the leading foot.
	**Level 3**The action is smooth, rhythmical, and done at a moderate tempo, but the arm action lacks a defined pattern.
	**Level 4**The action is smooth, rhythmical, and done at a moderate speed; the arms (elbows) are lifted to waist Level at takeoff and moved down at landing.

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A Appendix A: Protocols

FG-COMPASS

Locomotor: Hop					Student ID								
Was the hanging leg's knee bent 90 degrees or less, with a vertical thigh?	Y	Did the hanging leg's foot swing across the support leg's line like a pendulum?	Y	Level 4									
			N	Level 3									
	N	Was the hanging leg held in front of the body?	N	Level 2									
			Y	Level 1									

Set up

- Create a 15-long traveling lane using cones.
- Tape starting and ending lines on the floor.
- Stand perpendicular to the traveling lane to see the starting and ending points.
- Place two cones (each end) 1 foot before the starting and ending lines.

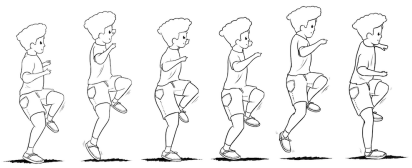
Directions for performers

- I want to see you hopping on one leg.
- Choose your preferred leg to hop.
- Start from that starting line and do not stop until you pass the ending line; then come back using the same leg.
- This is not a race; show your best form.
- Watch as I demonstrate.

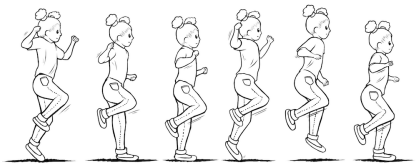
Notes for examiners

- Give the performer 4 trials (1st trial is for practice only).
- A behavior is considered present (answering YES) if observed in at least two trials.

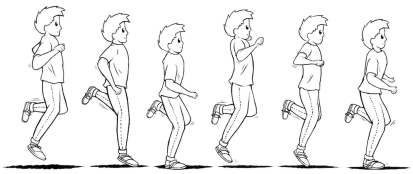
Level 1→ The suspended leg is held in front of the body.



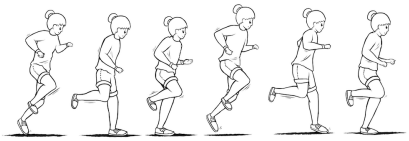
Level 2→ The knee is flexed with the foot of the hanging leg held near the buttocks.



Level 3→ The hanging leg is held back with the thigh vertically.



Level 4→ Similar to Level 3, the foot of the hanging leg crosses the line of the support leg like a pendulum.



FG-COMPASS

Locomotor: Horizontal Jump					Student ID								
Did the arms move forward & upward upon takeoff and downward at landing?	Y	Did the hands exceed the height of the head at liftoff?	Y	Level 4									
			N	Level 3									
	N	Was the takeoff/landing executed on one foot?	N	Level 2									
			Y	Level 1									

Set up

- Tape two parallel lines on the floor two feet apart.
- Stand perpendicular to the jumping action facing the side of the child.

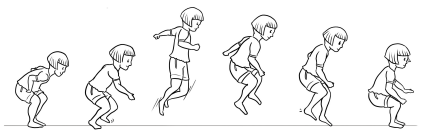
Directions for performers

- I want to see you jumping forward over the second line and using both feet.
- Walk up to the first line and stop completely.
- Then, jump as far as you can over the second line.
- Use both feet when taking off and landing.
- Then, walk back to the starting point and do it again.
- There is no rush; show your best jump.
- Watch as I demonstrate.

Notes for examiners

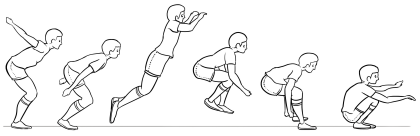
- Give the performer 4 trials (1st trial is for practice only).
- The child must stop completely behind the line before jumping.

Level 1→ The arm action is inconsistent with no defined pattern, sometimes even motionless. The takeoff and/or landing is executed on one foot.



Level 2→ The arm action may still be inconsistent, but the takeoff/landing is executed on both feet.

Level 3→ The arms move forward and upward during takeoff and then downward at landing. But the hands do not exceed the height of the head at liftoff.



Level 4→ A pattern similar to Level 3, but the hands are high above the head during the liftoff.

FG-COMPASS

Locomotor: Skip					Student ID								
Did the arms move rhythmically in opposition to the legs?	Y	Was there a low vertical lift on the hop?	Y	Level 4									
			N	Level 3									
	N	Was there a break in the rhythm caused by a double hop or step?	N	Level 2									
			Y	Level 1									

Set up

- Create a 15-long traveling lane using cones.
- Tape starting and ending lines on the floor.
- Stand perpendicular to the traveling lane to see the starting and ending points.
- Place two cones (each end) 1 foot before the starting and ending lines.

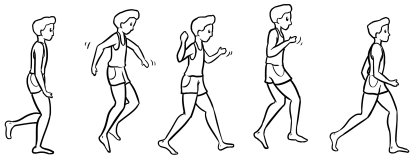
Directions for performers

- I want to see you skipping.
- Start from that starting line, and do not stop until you pass the ending line.
- This is not a race; show your best form.
- Watch as I demonstrate.

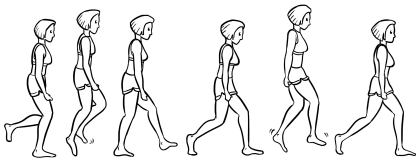
Notes for examiners

- Give the performer 4 trials (1st trial is for practice only).
- A behavior is considered present (answering YES) if observed in at least two trials.

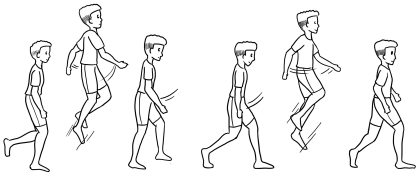
Level 1→ The arm action is inconsistent, with no defined pattern. A double hop or step affects the rhythm.



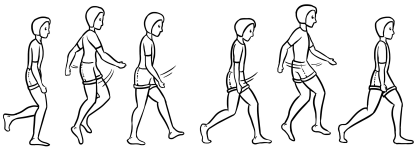
Level 2→ The arm motion may improve but is still inconsistent and often motionless. The action of the feet is well coordinated and not affected by a double hop or step.



Level 3→ Arms move rhythmically in opposition to the legs, but the hop has an exaggerated vertical lift.



Level 4→ The arms move rhythmically in opposition to the legs, and the vertical lift on the hop is low.



FG-COMPASS

Locomotor: Vertical Jump					Student ID								
Did the arms move backward during preparation?	Y	Did one arm reach upward at the flight's peak while the other swung downward?	Y	Level 4									
			N	Level 3									
	N	Was the takeoff/landing executed on one foot?	N	Level 2									
			Y	Level 1									

Set up

- Tape four parallel lines on the wall two feet apart.
- Stand perpendicular to the jumping action, facing the side of the performer.
- Ask the child to stand sideways with the dominant arm facing the wall.

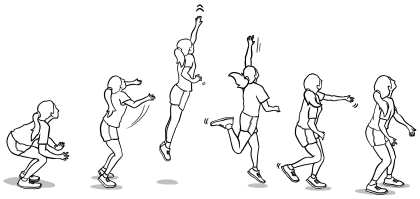
Directions for performers

- I want to see you jump high.
- Walk up to the wall and stand sideways.
- When I say so, jump up and touch the highest point on the wall using your dominant hand.
- Use both feet when taking off and landing.
- Then, get back to the starting position.
- There is no rush; show your best jump.
- Watch as I demonstrate.

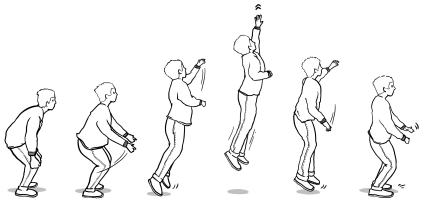
Notes for examiners

- Give the performer four trials (1st trial is for practice only).
- Ask the child to show the hand he/she writes with. That will help determine the dominant hand.

Level 1→ The arms don't move to the rear before taking off; the child takes off and/or lands with one foot.

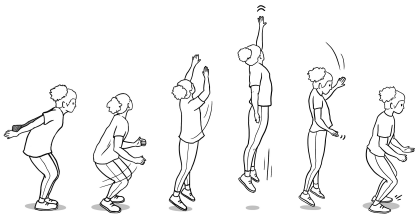


Level 2→ Arms don't move to the rear before takeoff; takeoff and landing occur with both feet.



Level 3→ Arms move to the rear before taking off, but only the reaching arm reaches up.

Level 4→ Arms move to the rear before taking off; both arms reach up, with the non-reaching arm moving down at the peak of the flight.



FG-COMPASS

Locomotor: Gallop					Student ID								
Was the action smooth (not choppy) and performed at a moderate speed?	Y	Did the arms move in unison, upward during takeoff and downward during landing?	Y	Level 4									
			N	Level 3									
	N	Did the trailing foot land in front of the leading foot?	N	Level 2									
			Y	Level 1									

Set up

- Create a 15-long traveling lane using cones.
- Tape starting and ending lines on the floor.
- Stand perpendicular to the traveling lane to see the starting and ending points.
- Place two cones (each end) 1 foot before the starting and ending lines.

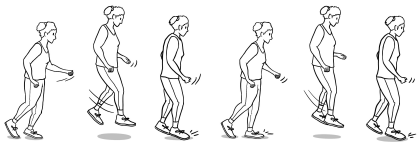
Directions for performers

- I want to see you galloping.
- Start from the starting line and do not stop until you pass the ending line.
- This is not a race, show your best form.
- Watch as I demonstrate.

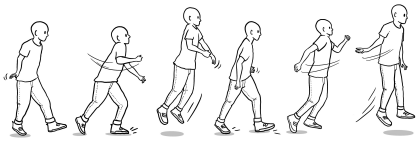
Notes for examiners

- Give the performer four trials (1st trial is for practice only).

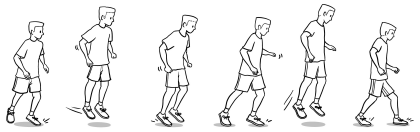
Level 1→ The action is not smooth and seems choppy/stiff. It is often done at a fast tempo, and the trailing foot (the foot that follows) lands in front of the leading foot.



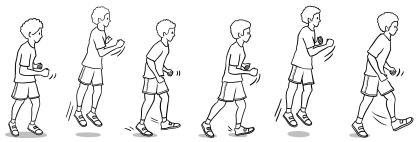
Level 2→ Still not a smooth action, but while the trailing foot may cross the leading foot during airborne action, it does not land in front of the leading foot.



Level 3→ The action is smooth, rhythmical, and done at a moderate tempo, but the arm action lacks a defined pattern.



Level 4→ The action is smooth, rhythmical, and done at a moderate speed; the arms (elbows) are lifted to waist Level at takeoff and moved down at landing.



FG-COMPASS

Manipulative: Overhand Throw					Student ID								
Did the trunk rotate to the side of the throw during preparation?	Y	Was there a long step opposite the throwing arm?	Y	Level 4									
			N	Level 3									
	N	Did the child fail to step forward?	N	Level 2									
			Y	Level 1									

Set up

- Tape a line 20 feet from the wall on the floor.
- Stand about 10 feet from the examinee to get a side view of the action.
- Place a bucket containing several bean bags three feet ahead of the line.

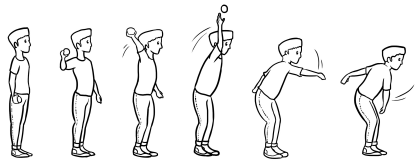
Directions for performers

- I want to see your throw.
- Walk up to the bucket, grab one beanbag, and throw it as hard as you can against the wall without stepping over the line.
- Then do it three more times.
- Watch as I demonstrate.

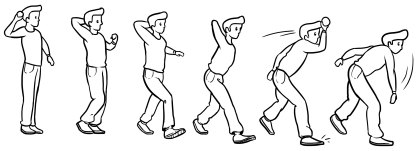
Notes for examiners

- Give the performer four trials (the first trial is for practice only).
- Do not allow performers to step over the line.

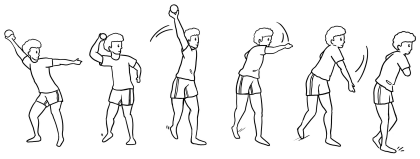
Level 1→ The trunk faces the target, and there is no step forward. Jumping up and down is not considered a step forward.



Level 2→ Minimal or no trunk rotation is observed during the preparatory phase. However, a forward step is taken, using either foot.



Level 3→ The movement involves a trunk rotation to one side and a slight step forward with the opposite leg.



Level 4→ The trunk rotates to the side with a long contralateral step forward (at least half the performer's height).

FG-COMPASS

Manipulative: Kick					Student ID								
Did the child take a long stride/leap before ball contact?	Y	Did the placement foot move forward following ball contact?	Y	Level 4									
			N	Level 3									
	N	Did the child fail to step toward the ball?	Y	Level 2									
			N	Level 1									

Set up

- Tape a line on the floor 15 feet from the wall.
- Place a medium-sized playground or soccer ball 3 feet ahead of the taped line.
- Stand about 10 feet from the performer to get a side view of the action.

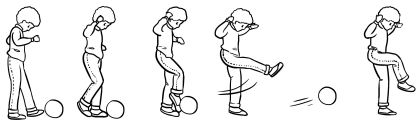
Directions for performers

- I want to see you kick the ball.
- Kick it as hard as you can to hit the wall.
- Start behind the line.
- After you kick, go get the ball and bring it back.
- Then do it three more times.
- Watch as I demonstrate.

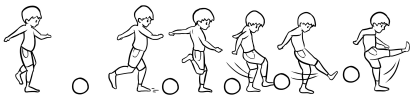
Notes for examiners

- Give the performer four trials (the first trial is for practice only).
- Replace the ball to the same position after each trial.

Level 1→ Performer attempts to strike the ball with the feet but misses and does not make contact.



Level 2→ The kicking leg does not show a preparatory backswing and pushes the ball forward rather than showing a kicking action.



Level 3→ The kicking leg backswings before contact, but the non-kicking foot is placed well ahead of the ball at impact.

Level 4→ The kicking leg backswings, and the non-kicking foot is placed even with or slightly behind the ball at impact.

FG-COMPASS

Manipulative: Hand Dribble					Student ID								
Did the ball bounce in front/outside of the preferred foot?	Y	Was the child able to keep control without using vision?	Y	Level 4									
			N	Level 3									
	N	Did the child ever lose total control of the ball?	Y	Level 1									
			N	Level 2									

Set up

- Tape a 4'x4' square on the floor to designate personal space.
- Stand about 6 feet from the examinee.
- Place a bucket of soccer balls 3 feet before the kicking line.

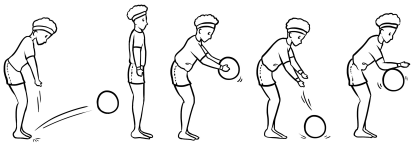
Directions for performers

- I want to see you dribbling a basketball with one hand.
- Try to stay inside the square while dribbling the ball.
- If the ball goes out of bounds, pick it up, return inside the square, and re-start.
- I will tell you when to stop.
- Watch as I demonstrate.

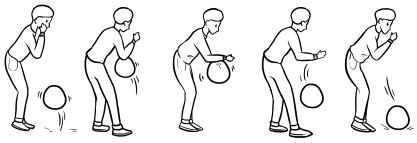
Notes for examiners

- Inquire about the child's preferred foot
- Give the performer a practice trial (about 5 seconds).
- Time the child's dribbling for 15 seconds using a stopwatch. Stop if the ball goes out, and resume when dribbling restarts.
- Children controlling the ball without looking show vision-independent control; otherwise, they're at Level 3.

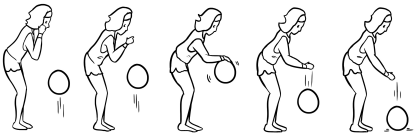
Level 1→ The child struggles to control the ball as it bounces erratically and loses control at least once.



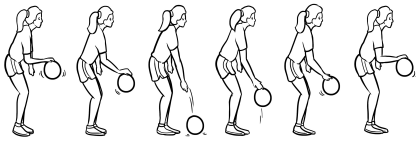
Level 2→ Despite a lack of control, the child bounces the ball continuously for 15 seconds.



Level 3→ Vision is used to maintain ball control. Bounces occur in front of or to the outside of the child's preferred foot, and the child has more control over the ball.



Level 4→ Control is clear, and the child does not rely on vision to maintain ball control.



FG-COMPASS

Manipulative: Catch					Student ID								
Was the ball caught using only hands without touching any other body part?	Y	Did the hands move well-timed and synchronized while catching the ball?	Y	Level 4									
			N	Level 3									
	N	Did the child trap the ball against the chest?	N	Level 2									
			Y	Level 1									

Set up

- Tape a 4'x4' on the floor to designate personal space.
- Stand about 6 feet from the child.

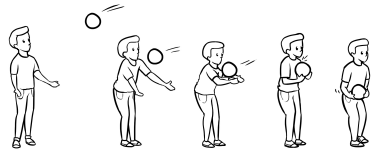
Directions for performers

- I want to see you catch a ball with two hands.
- Stand anywhere inside the square.
- Watch as I demonstrate.

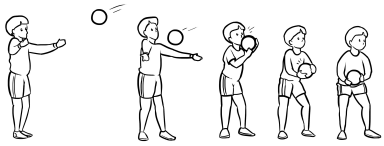
Notes for examiners

- Give the performer four trials (the first trial is for practice only).
- Use an underhand toss and toss the ball at the child's chest level.
- Repeat any attempt that results from a bad toss (too high/low or to the sides).
- Only assess consistency on the three "valid" tosses.
- If the ball is caught with hands and later brought against the chest, this indicates Level 2.
- A behavior is considered present (answering YES) if observed in at least two trials.

Level 1→ The child uses a scooping action to secure the ball against the chest.

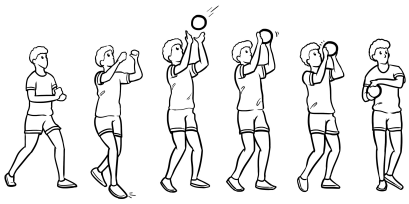


Level 2→ Following a successful catch, the ball is not secured against the chest but touches a body part other than the hands.



Level 3→ The action lacks coordination, with the ball making contact only with the hands. Players often extend their arms and/or turn their faces to the side.

Level 4→ Action is well-timed with the simultaneous motion of hands.



FG-COMPASS

Manipulative: Strike					Student ID								
Did the swing follow a full arc in a horizontal plane?	Y	Did the body weight shift from one leg to the other during movement?	Y	Level 4									
			N	Level 3									
	N	Was the bat's motion on a downward plane from back to front?	N	Level 2									
			Y	Level 1									

Set up

- Tape a 4'x4' square on the floor 20 feet from the wall.
- Stand slightly to the side (about 12 feet), facing the performer.
- Invert the position (the child faces the opposite wall/open space) if left-handed.

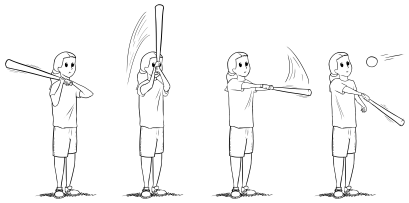
Directions for performers

- I want to see you strike a ball tossed in your direction.
- Try to stay inside the square, but you are free to move as the ball approaches.
- Strike the ball against the wall/open space.
- Watch as I demonstrate.

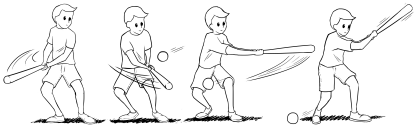
Notes for examiners

- Give the performer 4 trials (1st trial is for practice only).
- Use an underhand toss.
- Toss the ball at the child's hip level.
- Repeat any attempt that results from a bad toss (too high/low or to the sides).
- Only assess consistency on the three "valid" tosses.
- A behavior is considered present (answering YES) if observed in at least two trials.

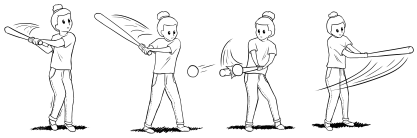
Level 1→ The arm action is from back to front and resembles a vertical chopping motion.



Level 2→ The motion occurs on the horizontal plane, but the action is limited in its amplitude. Often, the bat is held in front of the body.



Level 3→ The strike does occur in a long (full arc) horizontal plan, but there is no body weight transfer.



Level 4→ Same as Level 3, but now there is a transfer of body weight in the direction of the strike, which occurs from one leg to the other leg.