



SKILL | LAB

General Usage and Classroom Integration Guide for Teachers

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Introduction

Using this Guide

This guide is intended to be used as an ongoing support resource for teachers to reference when using the Skill Lab mobile app. It is not required to read this entire guide before using the Skill Lab app in your physical education class. We recommend reading this introduction section to familiarize yourself with the different ways the app can be utilized within your classroom. Based on your specific challenges and intended use for the app, you can then refer to the appropriate sections for guidance on proper implementation to ensure you experience the intended benefits of using the app.

Skill Lab Overview

Skill Lab is a teaching support resource designed to facilitate the development and assessment of movement skill competency. The three fundamental areas Skill Lab supports are skill technique demonstrations to improve cognitive understanding of proper performance, the ability to improve one's own technique through comparative video analysis, and efficient assessment of skill competency for each individual student.

Classroom Integration Overview

Skill Demonstrations

Visual demonstration of proper skill technique is a critical first step when learning a new motor skill. This is typically achieved by the teacher (or a student) providing an in-person demonstration for the rest of the class.

Some of the challenges associated with in-person demonstrations include:

- Some students need to see a skill demonstrated several times before they feel comfortable trying it themselves, while others only need to see a demonstration once.
- The teacher (or student) may not be capable of demonstrating more complex movement skills.
- It can be difficult keeping all students engaged during an in-person demonstration.
- It can be difficult to demonstrate a skill and explain proper technique simultaneously.
- You are limited to demonstrating a single skill at a time.

Skill Lab helps resolve these challenges by providing an interactive 3D skill demonstration model. This skill model can:

- Demonstrate proper technique for a wide variety of skills.

- Provide an infinite number of skill demonstrations without getting tired.
- Allow each student to select a skill demonstration of their choice.
- Keep students engaged in learning proper technique.
- Serve as a visual demonstration aid so teachers do not have to simultaneously demonstrate and explain a skill.

For a detailed description of the different ways you can utilize Skill Lab to help demonstrate skills, refer to page 6.

Skill Practice

Once understanding what proper technique should look like, the second step is improving one's own movement performance. Research has shown that video analysis and comparison of your current performance against the desired technique is one of the most effective ways to learn a movement skill. By allowing students to take a video of their own skill technique, compare it to the skill model, and analyze the differences between the two, Skill Lab can be used as a powerful learning tool to help students improve their own performance.

Some of the primary challenges faced when teaching a student to improve their technique include:

- Students often think they are doing the movement properly, even if they are not, due to low kinesthetic awareness.
- Motivating students to focus on practicing proper technique.
- Memory retention of what cues that student should be focusing on when practicing the movement.

Skill Lab uses three primary concepts to help address all of these challenges, making it easy for all students to see improvements in skill competency:

- Through having students create a video recording of their own skill technique and comparing it side-by-side to a proper skill demonstration, it allows them to develop cognitive understanding of the deficiencies in their current technique.
- Skill Lab uses simple concepts of gamification to make students want to practice proper technique. Through having students complete the skill assessment checklist, in a self or peer assessment fashion, it creates an achievement-based feedback loop, motivating students to continuously try the skill over again until they achieve all of the proper movement cues.
- The active learning style utilized by having students compare their own performance to the 3D model leads to better retention of proper movement cues for a specific skill.

For a detailed description of how you can use Skill Lab as a student learning tool to improve movement technique, refer to page 7.

Skill Assessment

Once your students are well on their way to developing movement skill competency, wouldn't it be great to have an efficient way to document all of this progress in one central location? Skill Lab provides teachers with an easy way to record skill demonstration videos, evaluate those videos for skill competency, and manage skill assessments for hundreds of students.

Some of the primary challenges faced when assessing skill competency include:

- Completing in-class evaluations is time consuming, making it difficult to do this frequently for a variety of skills.
- If you are currently recording videos of student skill performance, managing and sorting through videos for hundreds of students can be a nightmare.
- As students are required to learn such a wide array of movement skills, finding appropriate evaluation criteria for each skill is time consuming.

Using the Skill Lab app to complete skill competency assessments makes this process more efficient by:

- Allowing teachers to record and save video so you can reference the video when you want to complete an evaluation, this way you are not restricted to completing evaluation checklists during class.
- Videos can be tagged by student name and skill. When reviewing your videos at a later date, this allows you to sort them by class, student, date and skill.
- By having the student video, skill demonstration model, and evaluation criteria all accessible from a single screen, it is quick and easy to complete formal assessments for a large number of students.

For a detailed description of how to use Skill Lab to complete skill competency assessments on students, refer to page 8.

Getting Started

1. Download the Skill Lab mobile app by searching "Skill Lab" on the Apple App store. Skill Lab is available for both iPhone and iPad.
2. Once the download is complete, open the app and create your account. If your school or district uses Clever, we recommend logging in with your Clever account by clicking the badge at the bottom of the sign up screen. This will automatically populate the Skill Lab app with all of your class and student lists. If you are unsure whether or not your school has a Clever account, click [here](#) and search for your school. If you do not know your Clever login information, visit their support page [here](#) for more details or contact our IT department.

3. Once you are logged into the app, complete the Explore checklist to familiarize yourself with the general navigation through the different app features.
4. If you are planning to utilize Skill Lab as a student assessment tool, click on the the “Analyze” button on the bottom app navigation bar. Once on the analyze screen, click on the tag icon in the top right corner. Create your classes and student lists so you can efficiently manage your assessment videos.
5. Decide how you would like to incorporate Skill Lab into your lesson plans then refer to that section in this guide to ensure you follow the appropriate steps to implementation. You can also refer to our example lesson plans to see the many ways Skill Lab can be integrated into your teaching routine.
6. If you will be using Skill Lab to save video assessments of students, we recommend informing parents about about the app by sending home the Skill Lab Information letter that can be found [here](#).

All of the documents referred to in this guide, along with video support resources can be found at athlete-era.com/support.

Using Skill Lab to Demonstrate Technique

Introduction

One of the simplest ways Skill Lab can support instruction and student engagement during physical education is by providing a centralized location to access visual demonstrations of proficient technique for a variety of movement skills taught in the majority of physical education curricula. The demonstrations can be used by the teacher as a visual aid when explaining a movement to students, or by the students when they need a reference for how the skill they are practicing should look.

Basic set-up and usage

The augmented reality skill demonstration feature only works with newer versions of the iPad and iPhone. iPads that support AR include the 2017 iPad and all version of the iPad pro. iPhones that support AR include the iPhone 6S, 7, 8 and X.

1. Navigate to the augmented reality (AR) skill demonstration screen by selecting the “AR” button on the bottom navigation bar.
2. Select the skill you would like to have demonstrated from the list of available movement skills.
3. Once you have selected a skill, slowly move your device (iPhone or iPad) side-to-side with the camera pointed towards the floor.
4. Once the floor surface is detected by your device, a blue grid will appear on the screen.
5. Tap on the blue grid to place the skill demonstration model in the room with you.
6. The skill demonstration automatically plays on a loop so it will continuously repeat the skill.
7. Use the + and - buttons in the bottom right corner to make the model larger or smaller.
8. The model will stay fixed to the ground in the exact point that was detected by the blue grid. To see the skill from a different angle, you must physically walk around the skill model while keeping the phone camera pointed at the model.
9. Once you have finished watching the skill demonstration, click the X in the top right corner to return to the list of available skills.

Lesson Integration Strategies

If you only have access to a single iPad in the gym, the best way to provide engaging demonstrations for the entire class is by connecting your iPad screen to a projector using screen mirroring. This way you can walk around and examine the movement from all angles while explaining it to students what they should be looking at during the demonstration.

Students can then see the movement visual by watching the projection screen. This requires Apple TV (or another screen mirroring device) and some additional setup.

If you have a large number of iPads, you can have students work individually or in small groups to explore the movements while you provide verbal instruction as to what you want them to focus on during each movement. It can also be helpful to setup a few iPads around the outside of the gym when doing skill practice activities so students can refer back to the demonstration if they forget how a skill is done.

Using Skill Lab for Skill Practice

Introduction

Skill Lab can be utilized as a resource to facilitate student-led learning of proper skill technique. This is achieved through completing peer-to-peer learning activities facilitated by the app. During these activities, students will take turns being the skill instructor. The skill instructor will be responsible for showing their partner a skill demonstration, recording their partner attempting to do the skill, then reviewing the video with their partner to see how many coaching cues they achieved. This activity will help students improve technique, understand basic coaching cues as well as work on communication and cooperation skills. These peer-to-peer learning activities work best with students in grade 3 and up.

Basic set-up and usage

Preparation:

1. Download the Skill Lab app on all of the devices students will be using in the gym.
2. Login to the app before class starts.
3. It is helpful if students can download and explore the app from home before using Skill Lab in class for the first time. This way they will be more familiar with how to use it before doing the in-class peer-to-peer learning activities.

Activity Explanation:

1. Today you will take turns being the teacher.
2. The teacher is going to record their partner trying the skill (option to demonstrate the skill first using the augmented reality feature if needed).
3. Once you have recorded a skill, the teacher will go through the skill assessment checklist with their partner to see how many coaching cues they achieved.
4. The partner will then get to try the skill a second time to see how much they can improve.
5. The teacher and their partner will then switch roles and repeat steps 2 through 4.

Activity Execution:

1. Group students into partners.
2. Hand out one iPad to each pair of students.
3. Tell students what skill you want them to work on.
4. Make sure they have the appropriate equipment to complete the skill.
5. Have each pair of students find their own space in the gym.
 - a. When working on locomotor skills, this can take some coordination amongst the entire class. Consider having the partners who are practicing the skill do 2-3 laps around the gym using the specific locomotor skill. The “teachers” will then stand against the wall on the perimeter of the gym and record their partner as they pass by.

- b. When working on throwing and kicking, have students aim at a target on the wall.
 - c. When working on catching, have students throw the ball against the wall and catch it on return. If this is not possible, have students work in groups of three for this skill.
6. Tell students to switch teachers after 7-10 minutes.

Lesson Integration Strategies

These peer-to-peer teaching activities typically work best at the beginning of a unit when you are introducing new skills for the first time before moving on to more complex skill practice activities or games. If you are introducing several new skills at the beginning of a unit, you may want to work on peer-to-peer teaching activities using Skill Lab for 2-3 lessons.

If you have a limited number of devices (you are working with 3-5 iPads in the gym) it works best to use a station format. One station should be an “iPad” station where students will complete their peer-to-peer teaching activity for that day to develop proper skill technique. The second station can then incorporate a different activity where students can then further practice that specific skill.

Using Skill Lab for Skill Competency Assessment

Introduction

Recording video of student skill performance can be a helpful way to improve the efficiency of skill assessments. This can help teachers keep track of how students are progressing towards achieving skill competency without investing significant time towards in-class evaluations.

Basic set-up and usage

Preparation:

1. Open the Skill Lab app and navigate to the “Analyze” feature by clicking on the analyze button on the bottom navigation bar.
2. Once on the video recording screen for the first time, click on the tag icon in the top right corner.
3. This will bring up a screen where you can see all of your classes and students contained within each class. To add a new class, click “add an athlete of group”.
4. Click the button that says “Add Group”, name your new group, then press enter.
5. Now that your new class has been created, click on that class.
6. Click “Add Member”, type in the name of a student, then press enter. Repeat this step until you have a complete student list.
7. Once all of your students have been added, click “Done” in the top right corner to return to your list of classes. From here you can either add another class or click “Done” in the top right corner to return to the main tagging screen.
8. Now you are all set tag record and tag skill videos of students to keep track of all skill assessments.

** If you login using the Clever button located at the bottom of the sign up screen when you first open the app, this will allow Skill Lab to communicate with your current class roster(s). This will eliminate the need to individually enter all students and class lists.

Collecting Video:

1. Once you have decide what movement skill you would like to assess, plan an activity during which all students will be required to demonstrate this skill repeatedly. Having students work on a Skill Lab peer-to-peer coaching activity can work well for this.
2. Once students are busy working on the specific skill-based activity you have assigned, open the Skill Lab app and navigate to the “analyze” screen.
3. Once there, click on the tag icon in the top right corner.
4. Start by clicking the “Skills” tab and select what skill you are assessing.

5. Then go back to your student list by clicking the “Athletes” tab then find the name of the student you are about to record a video of and click “Done” in the top right corner.
6. Now take a video of the student trying the skill by pressing the red circular record button at the bottom of the screen.
7. Once you are done recording the video, it will bring you to the assessment screen. We recommend just clicking “Done” in the top right corner, then “Save” when it prompts you to keep the video. This way you can use class time to record all student videos and complete your assessment checklists at a later time.
8. Now that you are back at the video recording screen, click the “tag” button in the top right corner and select the next student you will be taking a video of.
9. Repeat steps 6 and 7.
10. Work your way around the class until you have videos recorded of each student demonstrating the specific skill you are assessing.

Completing your assessments:

1. Once it comes time to finish your formal assessments of student Skill Performance, navigate to the review screen by clicking the “Review” button on the bottom navigation bar.
2. This is where you will find all of the videos you have recorded and saved.
3. Use the filter options located at the top of the screen to sort your videos.
4. Click the large “All” button first and find the specific class of students you are completing assessments for.
5. Now you can use the remaining filters to sort videos by date, individual student or skill.
6. Once you have found the video you would like to complete the assessment for, click “View” on that specific video.
7. You will be taken to the assessment screen where you will see a side-by-side view of the student's skill video you recorded and a skill demonstration model.
8. Use the video scrubbers to play through the student video and compare this to the performance of the skill demonstration model on the top half of the screen.
9. If the student demonstrates one of the skill coaching cues properly, click on the checklist button in the top right corner of the student video.
10. This will bring up the technique assessment checklist where you can select all of the skill elements the student is demonstrating properly .
11. Once you have reviewed the video and completed the checklist, click “Done” in the top right corner.
12. Your assessment has now been saved and you can now move on to the next video you would like to assess.

All assessment videos use cloud storage so you can access them from any device once they have been collected. If you would like to review and complete your assessments from a different device, simply download the Skill Lab app on that device and login to your account.

Lesson Integration Strategies

It is primarily up to the discretion of the teacher as to exactly when they would like to complete skill competency assessments and how they would like to use the information collected. The main intent of the app is to provide teachers with an efficient way to collect information on skill competency levels for a large group(s) of students.

You may choose to complete assessments at the beginning of the school year for a select number of locomotor, non-locomotor and manipulative skills to get an idea of how competent students currently are at completing skills within each domain. It may also be used in-class as a formative assessment tool to show students how they are performing a skill while they are practicing to provide feedback during learning. Finally, it could be used as a summative assessment tool to determine if students have developed a specific skill after the completion of a unit.

Basic Technology Requirements

Types of Devices Required

Skill Lab is currently only available for iPhone and iPad. Although the app will work on all versions of these devices, the augmented reality skill demonstration feature will only work on iPads that are 2017 or newer and the iPhone 6S and up. If you are using the app with an older device, you can still complete all of your peer-to-peer learning activities and assessments as described in this guide. If you require skill demonstrations, you can still refer to the 3D skill model that is available when completing your skill assessments.

Number of Devices Required.

Skill Demonstrations

To use Skill Lab as a demonstration tool, it is recommended that you have access to a **minimum of five devices** in the gym. This way you can have students watch skill demonstrations in small groups and have multiple devices available should they require additional demonstrations when working on a specific skill. If you are wanting to provide demonstrations for a large group of students using a single device, it is recommended to use the screen mirroring approach described in the Skill Demonstration section of this guide.

Skill Practice

If you are using Skill Lab to complete the peer-to-peer learning activities, it is recommended you have access to a **minimum of five devices in the gym for a class size of 30 students**. Since these activities require one iPad for each pair of students, this allows you to have up to ten students working on that activity at once. This allows the activities to be easily integrated into your classes using a station format. If you have access to a single iPad, you can still complete the peer-to-peer learning activities; however, you may use it as a remedial aid during class for a select number of students rather than a standalone activity during your lessons.

Skill Competency Assessments

You will only need access to a **single iPhone or iPad** in the gym to use Skill Lab as your skill competency assessment tool. You can use this device to record all of your student skill demonstration videos during class. The Skill Lab app uses cloud video storage so you can complete your video assessments from any device. Simply download the Skill Lab app on that device and login to your account in order to access all of your videos.

Additional Information

Developing Physical Literacy with Skill Lab

Competence

Skill Lab helps support the development of skill competency in a variety of fundamental movement skills. This is achieved through the peer-to-peer learning activities that provide teachers with an easy way to get students engaged in deliberate skill practice that results in skill competency improvement. By utilizing the assessment functionality of Skill Lab, teachers can better track student achievement in relation to skill competency. This provides a more objective and standardized approach to monitor the delivery of physical education curriculum.

Confidence

Skill Lab helps students build confidence by providing regular positive reinforcement throughout the skill development process. By providing real-time visual feedback of skill improvement during the peer-to-peer learning activities, students become more confident in their own movement abilities. After a few weeks of app usage it is not uncommon to see students teaching other students by demonstrating technique without even referencing the app. Teachers can help further reinforce confidence to engage in a variety of physical activity mediums by continuing to emphasize the relationship between how achieving proper technique for a variety of skills can lead to other positive outcomes during physical activity.

Social

Skill Lab has the potential to impact positive social experience related to physical activity in a number of ways. Peer-to-peer learning activities for skill development have can create a more inclusive environment during physical activity. This is done by offering students a choice in what skills they want to develop and the ability to learn at their own pace. High task engagement during these activities also keeps students more focused on their own performance so they spend less time judging other less skilled students. Since majority of the the peer-to-peer learning activities can also be completed at home with a parent (equipment permitting), it also helps facilitates physical activity related social experiences at home.

Connecting Skill Lab to Your Physical Education Curriculum

