International Unicycling Federation

Skill Level Development Committee - Requirements

1 General

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1.2 Document History

Version	Author	Changes
2010/04/12	Thomas Gossmann	Document Created
2010/05/18	Thomas Gossmann	- Voting added - Rearranged requirements, based on voting

2 Introduction

This document contains the requirements for a new skill level system. These requirements are brought together by the Skill Level Development Committee Members.

2.1 Skill Level Development Committee Members

- Australia – David Buchanan
- Australia/USA – Jamey Mossengren
- Denmark – Emma Liisberg
- Denmark – Katja Nielsen
- Denmark – Signe Gjerding Jensen
- France – Adrien Delecroix
- Germany – Felix Dietze
- Germany – Thomas Gossmann (chairman)
- Germany – Petra Plininger
- Germany – Volker Kilian
- Germany – Wolfgang Schaper
- Japan – Haruko Matsunaga
- Japan – Mayumi Sakaino
- Japan – Yuka Sakaino
- Japan – Hiroyuki Shoji
- Switzerland – Philipp Henestrosa
- USA – Ryan Woessner
- USA – Connie Cotter

2.2 How to read this Document?

In chapter 3 are the requirements within 4 categories. The goal, stakeholders and the functional requirements in skills and testing categories. A requirement normally consists of a title, that's the big one (in blue) and various properties. The properties are the author that raised the requirement, a score (see voting in chapter 4), a description, a background and a fit criterion. Requirements are ordered based on their voting score.

The description describes the requirement itself whereas the background provides additional information. The fit criterion is used as quality management. During the implementation and of course afterwards.

Skills requirements are used to form the new levels.

The testing requirements are used to design the testing guidelines and provide constraints to the skill level testing process.

3 Requirements

3.1 Goal

3.1.1 Skill Level System

The goal of the Skill Level System is to create a system that guides new unicyclists through the world of unicycling and helps them learning skills.
The system should also create common guidelines for a standardized testing of skill levels around the globe.

3.2 Stakeholders

3.2.1 Unicyclists

Unicyclists performing skills.

3.2.2 Trainers

Trainers teaching skills.

3.2.3 Clubs

Clubs organize unicycle training in (different) training groups.

3.2.4 Testers

Testers verifying the quality of skills.

3.2.5 IUF

The IUF holds the umbrella over unicycling around the globe.

3.2.6 National Federations

They organize unicycling in their respective country.

3.3 Skills

3.3.1 Easy understandable

Author: Thomas Gossmann

Score: 4.64

Description:

Make the instructions on the skill levels papers sheet as easy to understand as possible. It is also a success of the new skill levels when they are easily and fast adopted. Complex levels wouldn't be. There could be complexity in the skill levels composition, for sure. But this should be hidden to the creators or implicitly shown to a more intended audience, like trainers.

Background:
Our hands-on clients are children at an age of 5 or 6 and up. They do not have the cognetive understandings of an adult.

Fit Criterion:
The skill levels should be understand by a 6 years old unicyclist without the help of an adult.

3.3.2 Include an increasing Range of Skills

Author: Thomas Gossmann

Score: 4.18

Description:
The skills should include a broad range of different skills. The higher the level gets the broader the included skills are.

Background:
The more different types of skills a rider learns the more experienced his movement resource gets. The wider it ranges the easier would it be for the rider to learn new skills.

Fit Criterion:
The levels cover an increasingly broader range of skills, as the level increases.

Some examples, a bad one:
Low level: Wheel Walk, SIF
Medium Level: 1ft. Wheel Walk, SIB
Advanced Level: Kosh-Kosh, SoS

a good one:
Low Level: Wheel Walk, SIF
Medium Level: Gliding, SIB
Advanced Level: Spins, Coasting, Drag-Seat, Cross-Over

3.3.3 Create dependency between levels

Author: Thomas Gossmann

Score: 3.73

Description:
When learning a specific unicycling skill it is often requirement that you can do some others skills before, because this would easy the learning of that specific skill. There are many dependency chains in unicycling skills, e.g. stand up wheel walk depends on 1ft wheel walk which depends on wheel walk. The levels should reflect those chains.

Background:
This isn't covered by any skill levels, that life in the wild.

Fit Criterion:
The skill level system considers skills that are dependent on other skills to be in a higher level and dependent appear in a level before that one. The dependent skills show a proper amount of an equal movement-pattern.

3.3.4 Provide a „red thread"

Author: Thomas Gossmann

Score: 3.55

Description:
The guiding of the skill level should be done alongside a "red thread".

Background:
People, that are new to unicycling, normally don't have an idea what is either possible on a unicycling nor do the know in what order they should learn different skills. The "red thread" gives them a walkthrough on the skills in the skill level system.

Fit Criterion:
No questions by the end users, what step is next.

3.3.5 Include Common Skills only

Author: Thomas Gossmann

Score: 3.55

Description:
Only include common skills in the skill level tree.

Background:
The skill levels should only provide a basic guideline. That should encourage riders to get creative on their own. The skills in the skill level tree will be the base for their creativity.

Fit Criterion:
Extraordinary skills are excluded.

3.3.6 Cover all disciplines

Author: Wolfgang Schaper

Score: 2.82

Description:
Set up different skill levels for the various disciplines. There should be a common basis that includes things like riding, mounting, or idling. On top of that there should be a set of specific skill levels for each discipline.

Background:
There are plenty of different disciplines like freestyle, trial, muni, racing, hockey, ... that don't have too much in common. Skills for one of that disciplines are irrelevant for another discipline and vice versa. So the skill levels should reflect the level of mastery with respect to a specific discipline.

Fit Criterion:

Include that skills that reflect the essence of each discipline.

3.3.7 Flexible

Author: Wolfgang Schaper

Score: 2.45

Description:
Make the skill levels flexible, i.e. a perfomer should be able to select skills within specific boundary conditions upon his/her discretion instead of being bound to exactly fixed skills.
The lower skill levels can be fixed, where the higher ones should become more and more flexible.

Background:
Each unicyclist has preferred skills and skills he/she does not like too much. If skill levels are made from fixed sets of skills (as in history) and you are lucky, a skill level covers your favorites, where other skills with comparable difficulty are not contained. That gives you an advantage compared to someone else, where it is the other way round.
For instance, if I am quite good at hopping, but in some skill level I need to idle, which I am not so good in, that would give me a disadvantage, albeit idling and hopping have the same difficulty score and are both stationary skills.

Fit Criterion:
Skill levels should reflect the expertise of a rider, respecting the fact that different sets of skills can lead to the same overall mastery.

3.3.8 Be safe with physiological issues (maybe)

(This requirement is considered as a special and has to be treated carefully!)

Author: Thomas Gossmann

Score: 2.18

Description:
Leave out skills that have backpack full of intense training.

Background:
The body has different energy sources. The body burns adipoid or carbohydrates. As a by-product acid is generated and rests in the muscles. For the removal of this, the body needs testosterone. This substance is not present in childs-bodys. The generation starts with puberty (~females at 11, male at 13). Normally the acid is removed 30minutes after training. When there is no testosterone present, it would take the body hours to remove it. This could have a further impact on the childs growth such as a decreasing estimated height.
Rule of thumb is to avoid exercises with weights that are heavier than your own body weight (with a normal BMI). Say a 6 year old child, with about 30kg and a unicycle of 4kg goes over this boundaries, when the child tries to jump. Nearly every muscle contracts to lift up the child with its unicycle. For generating the needed power, testosterone is needed, which isn't existent (as described).
Even though strength training is possible in younger ages and would minimize this issue of jumping. Also the duration of the jump execution is minimal - for one. But repeated - as normal in training - could be damaging.

Though, this fact isn't proved for (jumping with a) unicycle(-ing).

Fit Criterion:

skills that might have an impact on childs growth are avoided.

3.4 Testing

3.4.1 Clear Skill Definitions for Riders and Testers

Author: Wolfgang Schaper

Score: 4.45

Description:
Make the description of the skill levels undisputable, leaving no room for discussion how a skill needs to be performed. No additional execution rules or best practices should be needed or allowed.

Background:
In Germany (and maybe in other countries as well, but I don't know about that) there are unicycling organizations that use very specific interpretation how some skills need to be performed. So there are different ways of skill level testing, resulting in uncomparable results.

Fit Criterion:
There should be clear "done" criteria available for riders and testers being able to know exactly when a skill is performed correctly and when it is not.

3.4.2 Educated Testers

Author: Thomas Gossmann

Score: 4.18

Description:
Testers must come to the same result when testing different unicyclists at the same test when unicyclists perform equally.

Background:
Testers can't give different 'marks' for two unicyclists performing same tests equally.

Fit Criterion:
Testers needs to educated in:
1. The skill level system itself
2. An education on movement analysis

The IUF should provide a skill level tester education program.

3.4.3 Main Criteria: Objectivity, Reliability, Validity

Author: Thomas Gossmann

Score: 4.1

Description:
There are 3 main criterias for testing:
- Objectivity
- Reliability

- Validity

Background:
Criterias judge tests and meassure their value

Fit Criterion:
This requirements holds references to requirements that assure validity:
3.4.5 Test the Skills' Quality

This requirements holds references to requirements that assure objectivity:
Fehler: Referenz nicht gefunden Fehler: Referenz nicht gefunden

This requirements holds references to requirements that assure reliability:
Fehler: Referenz nicht gefunden Fehler: Referenz nicht gefunden

3.4.4 Common Setup

Author: Thomas Gossmann

Score: 3.27

Description:
If skill level tests need a setup, this one must be common everywhere.

Background:
1. Don't confuse unicyclists with different setups on the same test.
2. Provide comparability between tests through the same setups everywhere

Fit Criterion:
Setup guidelines are provided.

3.4.5 Test the Skills' Quality

Author: Thomas Gossmann

Score: 2.9

Description:
Testers should focus the quality of the skill and judge that.

Background:
Some skill level system rather test the constraints of a skill execution rather than the quality.

Fit Criterion:
The quality of a skill is tested.

3.4.6 Expiration of Skill Level Tests

Author: Wolfgang Schaper

Score: 1.36

Description:
Skill level tests passed successfully expire after some time, e.g. 3 years.

Background:
A passed skill level test does not indicate that a person is capable to perform specific skills, but only that that person was able to do these skills at the point in time when the skill level test took place. It is not clear that skills once acquired will still be available years later.

Fit Criterion:
n/a

4 Voting

Voting as follows:

	David Buchanan	Jamey Mossengren	Emma Liisberg	Katia Nielsen	Signe Jensen	Adrien Delecroix	Felix Dietze	Thomas Gossmann	Petra Plininger	Volker Kilian	Wolfgang Schaper	Haruko Matsunaga	Mayumi Sakaino	Yuka Sakaino	Hiroyuki Shoji	Philipp Henestrosa	Ryan Woessner	Connie Cotter	**Score**
2.3.1, Easy understandable		5	4				5	5	5	5	5	4			4	4		5	**4,64**
2.3.2, Include an increasing range of skills		4	3				5	5	4	4	4	4			4	5		4	**4,18**
2.3.3, Create dependency between levels		5	4				3	4	4	4	3	3			4	5		2	**3,73**
2.3.4, Provide a "red thread"		4	4				3	5	4	4	5	3			3	3		1	**3,55**
2.3.5, Include common skills only		3	4				4	3	4	3	0	5			5	4		4	**3,55**
2.3.6, Cover all disciplines		3	2				5	3	4	3	3	4			2	1		1	**2,82**
2.3.7, Flexible		0	2				4	3	1	4	5	4			4	0		0	**2,45**
2.3.8, (Be safe with physiological issues)		1	1				5	5	3	3	1	1			3	1		0	**2,18**
3.4.1, Clear Skill Definitions for Riders and Testers		5	5				5	4	4	4	5	3			5	5		4	**4,45**
3.4.2, Educated Testers		5	3				5	5	4	4	4	3			5	3		5	**4,18**
3.4.3, Main Criteria: Objectivity, Reliability, Validity		4					5	5	4	4	5	3			5	3		3	**4,1**
3.4.4, Common Setup		4	2				5	3	3	3	3	2			4	3		4	**3,27**
3.4.5, Tests the Skills' Quality		3	3				3	5		3	2	3			5	1		1	**2,9**
3.4.6, Expiration of Skill Level Tests		0	0				2	0	1	1	4	2			3	0		2	**1,36**

voters participation: 61%