

Review of the NZASP Ratings System, January 2019

Executive Summary

In 2016, the NZASP Executive Committee requested a review of the national rating system to address various anomalies being observed. Steven Brown, the Ratings Manager, analysed tournament data from 1999 and produced a set of findings and recommendations in a detailed report. These recommendations have been endorsed by a Ratings Review Panel comprising: Patrick Carter, John Foster, Alastair Richards and Dylan Early. The recommendations are summarised below.

1. **Ratings Curve (Expectancies)** - A rating curve is used to calculate a player's expected number of wins in each tournament. The recommendation is to continue with the current (2017) system, i.e. $(1 / (1 + \text{EXP}((\text{PlayerRating} - \text{OpponentRating}) / -313)))$. This is the same rating curve used in the WESPA rating system and provides accurate expectancies.
2. **Multiplier (K-factor)** - To calculate a player's rating change, their expectancy is multiplied by a number called a multiplier or K-factor. The recommendation is to change the multiplier to a consistent value, equivalent to playing a 15-game tournament in the current (2017) system by using the formula $((3000 - \text{rating}) / 100) * 1.5$. This moves closer to the NASPA and WESPA rating system multipliers.
3. **Acceleration / Feedback points** - The recommendation is to remove acceleration and feedback points except for players who have played fewer than 30 games or who have historical ratings (i.e. have not played for more than two years).
4. **Participation points** - The recommendation is to remove participation points (currently players receive one rating point for every three games played). Other measures are available to achieve the desired aims of participation points if required (e.g. Using peak ratings for tournament qualifications to encourage more frequent tournament play) although that is beyond the scope of this exercise.
5. **Provisional players (first 30 games)** - The recommendation is to change how the rating is calculated for provisional players. Provisional players will only be rated as provisional in their first tournament. This rating will be calculated in the same way as established ratings for all subsequent tournaments (except as noted under acceleration / feedback points above).
6. **Timing of implementation and review** - The recommendation is to implement the new system at the beginning of this year (2019) and review it after two years unless indicated earlier.