

# Turnitin Guidance & Rationale

Turnitin identifies similarities between the text of submitted work and the text of other sources accessible via the internet.

Course teams and markers can use Turnitin reports to help identify whether academic misconduct such as plagiarism or collusion might have occurred. This percentage similarity value generated by Turnitin can give an initial indication that problems might exist within a piece of work and prompt staff to investigate further; this score is never used in isolation as any kind of criterion. Most importantly Turnitin reports are examined by academic staff who then make an academic decision about the overall nature and extent of any similarities.

The nature of the similarities may take various forms, including not limited to the following examples showing patterns of similarity:

Continuous, uninterrupted sequences of words which are identical to those in another source	Broken sequences of words which follow a similar pattern to those in another source	Multiple sequences of text derived from different sources are all combined together in a 'patchwork'
<p>For endurance activities with high levels of energy expenditure, energy intake is an important variable to be considered when devising strategies for optimizing performance [1, 2, 3]. High exercise intensities over prolonged periods imply high carbohydrate (CHO) and also fat oxidation rates [4]. CHO and fat availability are thus important determinants of energy expenditure and it is presumed that athletes use optimal nutritional strategies, not only to manage intake during races, but also before races, to optimize stores and after races to promote recovery [2, 3, 5, 6]. There exists a plethora of literature on sports nutrition, and several scientific and sports organizations such as the American Dietetic Association (ADA), the Dietitians of Canada (DC), the American College of Sports Medicine (ACSM) [2, 3], the International Olympic Committee (IOC) [9] and the International Society for Sports Nutrition (ISSN) [16, 17] have published recommendations and guidelines on energy intake before, during and after exercise [1]. Paradoxically, there is relative paucity of literature reporting actual athlete nutritional behaviour [2]. Among athletes, actual nutritional behaviour does not always comply with the official recommendations, because of a lack of knowledge [13], mistaken beliefs, lack of interest or motivation, practical problems, or perhaps intention [14]. Nutritional knowledge and beliefs can influence food behaviour [15], even if the relationship is not necessarily obvious. Improved nutrition knowledge plays a role in the adoption of healthier food habits [16, 17] and this is likely also the case for sport nutrition. Better insight into actual athlete behaviour and its determinants is important for adapting guidelines in view of improving compliance [18, 19].</p> <p>A particular type endurance sport is ski-mountaineering racing, consisting of climbing uphill on alpine skis with the heels anchored in special pivoting bindings and adhesive skins applied to the gliding surface, alternated by strong downhill with the skis released and the bindings in the locked position. What makes this sport particular is that it combines very strenuous activity in different locomotion modes with exposure to altitude hypoxia and temperature extremes. Especially uphill the exercise intensity is high with a large fraction of time spent around the respiratory compensation threshold [20, 21, 22]. The most popular and famous ski-mountaineering races are generally team races that can last from 4 to more than 12 h. We previously quantified energy expenditure during a famous Swiss ski-mountaineering race ("Pionniers des Glaciers") and found that it was very high, more than 20 MJ (4,800 kcal) for the shorter race (total distance: 26 km, altitude difference: -181 m and +241 m; maximal altitude: 3103 m) and more than 35 MJ (8,400 kcal) for the longer one (distance: 33 km, altitude difference: &gt;500 m and &lt;-600 m; maximal altitude: 3606 m) [22].</p> <p>The goal of the present study was to get a global perspective on pre-race nutritional habits among amateur ski-mountaineers during the 4 days preceding the major national ski-mountaineering race. Four different aspects were investigated: 1) pre-competition nutritional practice; 2) comparison between practice and recommendations; 3) comparison of food behaviour between participants in longer and shorter races; and 4) knowledge and beliefs about pre-race nutrition.</p>	<p>In endurance activities involving high expenditure of energy expenditure, intake is a very important variable to consider when devising strategies for optimization of performance [1, 2, 3]. Exercise of high intensities over long periods suggest high carbohydrate (CHO) and also fat oxidation rates [4]. Availability of CHO and fat are important for determination of energy expenditure and it is crucial that sports people use optimal nutritional strategies to not only manage food intake during a race, but also pre-race, to optimize stores, and post-race, to benefit infatigable [2, 3, 5, 6, 7]. There are many studies published on sports nutrition, and several scientific and sports organizations such as the American Dietetic Association (ADA), the Dietitians of Canada (DC), the American College of Sports Medicine (ACSM) and the Dietitians of Canada (DC) [2, 3], the International Society for Sports Nutrition (ISSN) and the International Olympic Committee (IOC) [9, 10, 11] have published guidelines and recommendations on intake of energy before, during and after exercise [1]. Paradoxically, there is relative paucity of literature reporting actual athlete nutritional behaviour [2]. Among athletes, actual nutritional behaviour does not meet the official nutrient recommendations, due to lack of knowledge [13], mistaken beliefs, lack of motivation or interest or, practical issues, or perhaps even intention [14]. Nutritional knowledge and athletes beliefs could influence the eating behaviour [15], even when relationships are not very obvious. Improvements in knowledge of nutrition could play a key role in adopting of healthy food habits [16, 17] and it is likely also to be the case for nutrition in sport. Better insight into the true athlete behaviours and their determinants is important for adoption of guideline documents in view of improving athlete compliance [18, 19].</p> <p>Ski-mountaineering racing is an endurance sport which consists of uphill climbing using alpine ski equipment with the heels anchored via special pivoting ski bindings and "skins" which adhere to the gliding surface, alternated with downhill skiing where the skis are released and the ski bindings are locked. This sport is unusual in that it combines strenuous physical activity using different modes of locomotion with exposure to temperature extremes and high altitude hypoxia. During uphill locomotion the intensity of exercise intensity is high with a high proportion of time spent around the respiratory compensation threshold [20, 21, 22]. The most famous and popular races in ski-mountaineering are usually team races that can last between 4 and 12 hours. We have previously measured expenditure of energy during the "Pionniers des Glaciers" (a well-known ski-mountaineering race in Switzerland) and reported that this was very high in races of 26 MJ (4800 kcal) for the short race (total distance: 26 km, altitude difference: -181 m, distance: 241 m, maximal altitude: 3103m) [22]. In races of 35 MJ (8400 kcal) for the longer one (distance: 33 km, altitude difference: &gt;500 m and &lt;-600 m; distance: 3606m) [22].</p> <p>The aim of this study was to gain a global nutritional perspective on pre-race nutritional habits in amateur ski-mountaineer athletes during the 4 days which preceded a major long-distance ski-mountaineering race. Four aspects were examined: 1) pre-competition nutritional practice; 2) comparison of recommendations and practice; and 3) comparison of eating behaviour between the participants in long and short competitions; and 4) beliefs and knowledge of pre-race nutritional intake.</p>	

## 1) How might similarities occur?

If text is simply copied and pasted then **continuous sequences** of words would be highlighted in Turnitin.

If text is copied, pasted and then superficially altered, e.g. by substituting some of the words, then **broken sequences** of words would be highlighted in Turnitin.

If mistakes are made during the note-taking process this can result in inadvertent similarities. Whether notes are handwritten or taken using copy and paste, they run the risk of accidentally transferring verbatim text from the source publications into submitted student work. Issues with note-taking have caught out many experienced academics, for example:

- <https://www.theguardian.com/books/2014/jan/19/lewis-wolpert-sorry-using-others-work>

If there is not enough time to research, read and understand a topic then it is impossible to write about it meaningfully in your own words. One becomes forced to be more reliant on the form of words used by others resulting in similarities and plagiarism.

## **2) Are similarities in Turnitin a problem?**

Turnitin does not identify plagiarism, it only identifies areas of similarity which then require interpretation by academic members of staff - there is no % 'score' to 'aim for'.

Some similarities are quite legitimate and perhaps inevitable in some assessments; for example use of datasets or text from a questionnaire. While these are automatically identified by Turnitin they will be always be interpreted from an academic perspective by the course team who are aware of the nature of the assessment.

Copied text can be legitimately used when it is a "direct quotation". There is no problem here as long as quotations are both set in quotation marks AND referenced correctly (i.e. citation should include page number where available, and enough information given in citation and reference list to uniquely identify the source).

Similarities with no legitimate explanation, could be indicative of potential academic misconduct.

Copied text not enclosed in "quotation marks" could be considered as plagiarised; this would be the case even if referenced correctly. Accidentally omitting quotation marks produces text which cannot distinguished from plagiarised text. This is really important to appreciate as the university does not distinguish intentional or unintentional plagiarism.

Closely paraphrased text can also be considered plagiarism, even if referenced correctly. This practice can involves copying text and 'tweaking' the words (e.g. amending their order, changing abbreviations, and substituting words). Proper paraphrasing means summarising in your own words with sentences written from scratch, and with a corresponding reference(s).

Most academic disciplines and subject areas have recognised stock phrases and sequences of words which cannot logically be re-worded and should remain intact. For example the phrases "*The constitution of the United States of America.*"

The extent of similarity with other sources can be more extensive than the basic highlighting of Turnitin suggests.

The sources identified by Turnitin may not be the only place that the material can be found – for example Turnitin may identify Wikipedia as the source, although the material may also be published elsewhere.

Academic judgements about academic misconduct can draw on any information, not just that generated by Turnitin.

Not all similarities or instances of plagiarism are identified by Turnitin. Academic staff are not restricted to using Turnitin to identify issues in written work.

### **3) How might similarities be avoided?**

#### *In your own words...*

All students must develop the ability write in English in their own words ('own voice'), based on their own understanding, gained from reading the sources which they have consulted directly and referenced correctly. When writing in this way the probability of writing sequences of words matching other sources to an extent that is identifiable as a problem by Turnitin is vanishingly small.

#### *Direct quotations...*

Copied text can be used when it is a "direct quotation", both set in quotation marks AND referenced correctly. From an academic perspective it is best practice to use direct quotations sparingly in order to demonstrate your understanding - they should never dominate the writing.

#### *Careful Note-taking...*

Take great care when making notes. People use different approaches to note-taking including handwritten and electronic processes. Whichever are used we strongly recommend that summarised notes are taken in a way that involves writing in one's own words rather than copying sequences of words from sources. Doing this offers both intellectual benefit and it reduces the chance of accidental transfer of text resulting in plagiarism.

#### *Good Time management...*

Make sure you have enough time to read and understand your sources. Having a clear understanding facilitates the ability of people to write in their own words.

### **4) Advice for Course Teams**

Assessment design and clear information for students is key to reducing the chance of academic misconduct but can never eliminate this. Therefore prevention and detection measures implemented together offer the best chance of both discouraging academic misconduct and protecting academic standards.

With regard to detection, the default position should be that use of Turnitin be considered standard practice whenever text-based documents are submitted online for summative assessment (coursework or online remote assessments).

Occasionally there may be specific items of assessment for which Turnitin use is not possible for technical reasons or not appropriate for pedagogical reasons. If course teams want to opt out of using Turnitin for a specific item of assessment, then they should present a technical argument or a pedagogical argument as to why it is inappropriate, and what measures are proposed to ensure that academic integrity is maintained. This will involve considering the potential vulnerability to academic

misconduct – intentional or unintentional. The SAMO for the school concerned will be able to advise.

Information about Turnitin (including a sample statement for students) is available on the Information Services website: <https://edin.ac/35xlqMN>

Students must be informed about the use of Turnitin, and made aware of the fact that their work will be stored in the database

Students should be aware that their intellectual property rights remain unchanged when they use Turnitin to submit work. Turnitin does not claim ownership of students' work; it is still 100% the student's property.

Students could have some opportunity to examine Turnitin reports of their own writing for formative use in order that they can understand how it functions in relation to their own writing and academic practice.

Students should never be able to access the Turnitin report of any summative assessment before the submission deadline if a re-submission is still possible. The opportunity to 'View before submission' opens a route which allowing reliance on poor writing practices; at worst it allows one to identify and cover up evidence of underlying plagiarism. The need to 'View before submission' is completely superfluous when the steps in (3) above are adhered to and it is these that staff should be promoting the value to students.

Course teams must agree whose responsibility it is to check Turnitin reports and ensure that they understand their use. Turnitin reports must be interpreted in the context of the content of the writing, therefore the most logical time to do this is at the time of marking. However it is important that all staff are aware that ANY member of the university community can report suspected academic misconduct – this should not just be restricted to specific staff within a course team.

Turnitin reports must be interpreted by academic staff involved in the teaching and/or marking for the course concerned.

## **5) Resources for students on good academic practice**

The Institute for Academic Development provide guidance to help students to understand what the University means by good academic practice (<https://edin.ac/34ylPhL>), and guidance and tips on how to avoid plagiarism by citing and referencing (<https://edin.ac/2u0a0it>).