

Thinking critically about cannabis

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Introduction

Purpose

This resource engages students in a learning process to think critically about the wellbeing aspects of the situation. In this case, the situation is cannabis.

Young people hear many mixed and conflicting messages about the safety or risks of cannabis use. In health education, students learn how to explore evidence and have detailed consideration of issues. This is not about swaying opinion to one side of the issue or the other, or for teachers and students to take an emotive and moralistic stand on the matter. Students will form their own informed position through learning activities that help them consider evidence.

This adds to the suite of Tūturu¹ teaching resources that develop students' critical thinking skills and supplement other resources such as *Alcohol and other drugs: A resource of teaching and learning activities for teachers of students in Years 9-13*².

All the activities are grounded in the underlying concepts of health education in *The New Zealand Curriculum*, as well as pedagogical approaches expected of New Zealand teachers.

These teaching and learning activities aim to help students learn how to:

- Understand cannabis use as a holistic wellbeing issue and a social issue.
- Understand the perspectives (values and beliefs) of those groups and individuals for and against cannabis use.
- Identify misinformation about cannabis and develop knowledge about where to source 'good' (reliable and credible) sources of information.
- Think critically about the information and evidence provided by groups for and against cannabis use.
- Identify the type of education and support young people need to make healthy choices that will support their wellbeing, and reduce harm from cannabis use.

You can use these activities across years 9-13 although some activities are more applicable for senior students who have a more comprehensive understanding of the underlying concepts used in health education. The learning intention with each activity indicates the level of the NZC that the activity most closely links to. At junior secondary level, a small number of these activities may be able to be incorporated into an alcohol and other drug unit to give a topical focus to the learning, whereas at senior level, this material could contribute to a unit leading to assessment with *Achievement Standard AS91464 Analyse a contemporary ethical issue in relation to wellbeing*, or *AS91461 Analyse a New Zealand Health Issue*.

¹ Tūturu website resource hub <https://www.tuturu.org.nz/resource-hub/>

² Robertson, J. and Dixon, R., (2020), *Alcohol and other drugs: A resource of teaching and learning activities for teachers of students in Years 9-13*, New Zealand: NZHEA. <https://healtheducation.org.nz/resources/>

Teacher knowledge

Curriculum knowledge

Teachers of health education use the underlying concepts of the health and physical education learning area to frame learning about all health education topics, including cannabis use and non-use.

- Through using the concept of **hauora** and Mason Durie's whare tapa wha model³, students develop a holistic understanding of the way cannabis use impacts health and wellbeing. That is, they learn about the inter-related impacts of cannabis use on taha tinana – physical wellbeing, taha hinengaro – mental and emotional wellbeing, taha whānau – social wellbeing, and taha wairua – spiritual wellbeing.
- Through the **socio-ecological perspective**, students also learn about the ways cannabis (non)use and wellbeing, is influenced by a range of interconnected factors. These factors operate at a:
 - **personal level** – (where the individual is either oneself or another person) the focus is on personal values and beliefs about cannabis use, personal decision making about behaviour, opportunities and experiences, character and disposition, etc.;
 - **interpersonal level** – the type of communication and level support provided during interactions with others; and
 - **community and/or societal level** – which introduces ideas about the social determinants of health and the combination of political, economic and cultural factors that impact cannabis (non)use and wellbeing.
- By learning skills for, and knowledge of, **health promotion** processes students learn how to take individual and collective action that promotes the wellbeing of themselves, others, their communities, and all of New Zealand society, in relation to cannabis use.
- Students also learn how to take action that shows the **attitudes and values** of respect, care and concern for self, others and society, as well as how to act in ways that are fair and inclusive (that is, actions that reflect the values of social justice).

Drug-specific knowledge

Teachers of health education are not expected to have pharmacological and medical knowledge about the effects of drugs and their impact on health. Given the holistic 'wellbeing' focus of health education, there is no expectation that they develop such knowledge. What is more important is that teachers, like students, know how and where to access credible and high quality information from a reputable source. **The New Zealand Drug Foundation**⁴ is recommended as the source for information about drugs and drug-related harms from a New Zealand policy perspective.

³ Te whare tapa wha model, Mason Durie <https://health.tki.org.nz/Teaching-in-HPE/Health-and-PE-in-the-NZC/Health-and-PE-in-the-NZC-1999/Underlying-concepts/Well-being-hauora>

⁴ New Zealand Drug Foundation <https://www.drugfoundation.org.nz/>



Teacher attitudes and values

Teachers will have their own views about cannabis use and, like many people in the adult population, some teachers will have personal experience of cannabis use.

When including teaching and learning activities about cannabis in their programmes, teachers are respectfully reminded of their professional obligations in *Our Code Our Standards: Code of Professional Responsibility and Standards for the Teaching Profession*⁵.

Specific attention is drawn to **Section 2 the code of professional responsibility (commitment to learners)** which states that teachers **will work in the best interests of learners by:**

- #1 Promoting the wellbeing of learners and protecting them from harm,
- #2 Engaging in ethical and professional relationships with learners that respect professional boundaries; and
- #6 Being fair and effectively managing [their] assumptions and personal beliefs.

The importance of critical thinking⁶

Critical thinking in health education is defined as *'examining, questioning, evaluating, and challenging taken-for-granted assumptions about issues and practices'*⁷.

Critical thinking about cannabis use enables students to:

- Think about and evaluate their own thinking and behaviour on cannabis-related issues.
- Make reasonable and defensible decisions about issues related to individual and community wellbeing in situations involving cannabis.
- Challenge and take individual and collective action to address social, cultural, economic, and political inequities and inequalities related to cannabis use.

Learning to think critically and to take critical action requires students to:

- Learn how to analyse and evaluate information about cannabis use and give feedback about their analyses, and evaluations of actions taken.
- Question and challenge each other's assumptions about cannabis use in a non-

⁵ *Our Code Our Standards: Code of Professional Responsibility and Standards for the Teaching Profession*, Teaching Council New Zealand Matatū Aotearoa <https://teachingcouncil.nz/content/our-code-our-standards>

⁶ Adapted from *The Curriculum in Action: Making Meaning Making a Difference* Ministry of Education, 2004 <http://health.tki.org.nz/Key-collections/Curriculum-in-action/Making-Meaning/Teaching-and-learning-approaches/Importance-of-critical-thinking>

⁷ *Critical thinking definition in Health and Physical Education in the New Zealand Curriculum*, Ministry of education (1999) <https://health.tki.org.nz/Teaching-in-HPE/Health-and-PE-in-the-NZC/Health-and-PE-in-the-NZC-1999>



threatening manner.

- Learn to identify inequalities and power relationships when groups of people hold particular views about cannabis use, and how these positions are reinforced.
- Reflect on people's assumptions, beliefs, and behaviours related to cannabis use and the ways a wide range of these impact on wellbeing.
- Recommend alternative solutions that promote wellbeing in relation to cannabis use and accept them or critique these ideas in a sensitive manner.
- Develop the skills and confidence to work with others when taking critical action to promote wellbeing in relation to cannabis use.
- A key component of this resource is around thinking critically to recognise and then challenge misinformation (some of which could be considered 'fake news'), which often prevails when opposing groups in society are presented with an ethical or moral dilemma.
- Critical literacy is an essential tool for critical thinking and comes from the premise that 'language is always used in some context that includes power relationships'. Teachers are encouraged to use established (critical) literacy strategies that are supported school-wide and give focus to language use in these learning activities.

Harm minimisation as the position supported by education⁸ and the National Drug Policy⁹

As a matter of policy, the harm minimisation approach does not condone drug use.

- A harm minimisation approach recognises and endorses non-use of alcohol and other drugs as way to reduce harm.
- Harm minimisation acknowledges that some people in our society will choose use alcohol and other drugs.
- Therefore, a harm minimisation approach to policy aims to prevent or reduce drug related harms.
- Harm reduction is a central pillar of the harm minimisation approach.

Noting that the three 'pillars' of a harm minimisation approach include harm reduction, demand reduction, and supply control/reduction.

*Preparing students young people to live in a world where drugs exist*¹⁰ acknowledges that:

⁸ Alcohol and other drug education programmes - guide for schools, Ministry of Education <https://health.tki.org.nz/Teaching-in-HPE/Policy-guidelines/Alcohol-and-other-drug-education-programmes>

⁹ National Drug Policy 2015 to 2020, Ministry of Health, <https://www.health.govt.nz/publication/national-drug-policy-2015-2020>

¹⁰ Preparing students young people to live in a world where drugs exist, NZ Drug Foundation <https://www.drugfoundation.org.nz/assets/uploads/drugs-education-discussion.pdf>



- *EVERY student will make a decision whether or not to use alcohol and other drugs.*
- *MANY students will try alcohol and other drugs.*
- *SOME students will suffer short-term harms.*
- *A FEW students will develop long-term problems.*

An effective approach to minimising harm from alcohol and other drug use in school settings requires a whole-school approach which includes:

- Positive school environments
- **Effective education**
- School-based support
- Professional treatment interventions

Other AoD resources

In addition to these activities, the NZHEA resource *Alcohol and other drugs: A resource of teaching and learning activities for teachers of students in Years 9-13 (2019)* includes cannabis related teaching and learning activities focused on the:

- Health and wellbeing impacts of cannabis use
- Factors that influence people to use cannabis
- Statistics showing incidence and patterns of cannabis use in New Zealand
- Strategies (skills and actions) for safely and responsibly managing situations where cannabis is being used.

Overview of the teaching and learning activities

1. Cannabis use as a health and wellbeing issue

To establish the wellbeing focus for all of the activities in this resource, students revisit learning about the impacts of cannabis on wellbeing.

This section contains 3 activities for teachers to select from.

2. Are all cannabis products 'the same'?

This activity requires students to check their understanding about the various forms in which cannabis is used and the implications of this for health and wellbeing.

3. Reliable information or 'fake news' about cannabis?

Some lobby groups and individuals who support one or other position (for or against) emotive and controversial social issues may resort to using misinformation to support their cause. For some years now social media has provided a platform from which to promote these misinformed messages and create 'fake news'. This activity provides students with a range of tools and approaches to recognise misinformation and instead, identify reliable sources of information.

4. Causation or correlation?

Claims about the risks or benefits of cannabis use based on research are inconsistently reported by media. Newspaper headlines and articles often sensationalise or misrepresent the actual findings. This activity requires students to make a distinction between causal factors (of cannabis use and harms) and statistical correlations, as a way to critique claims reported about risks or benefits of cannabis.

5. Who is for and against cannabis use in New Zealand – and why?

Controversial and divisive social issues inevitably brings together groups of like-minded people to lobby for the cause or the position they support. Campaigning and advocating by these lobby groups then tries to influence others. This activity requires students to investigate the groups in New Zealand for and against cannabis use, what these groups value and believe, and whether their position is backed up by credible and reliable information.

6. Ethical thinking and cannabis use

For senior students. Students are provided with an ethical thinking framework to think about the views for and against cannabis use.

7. Educating young people about cannabis

In this activity students are asked what education should be provided for them. What education do they think they need that will support their wellbeing now and in the future, and help them to manage situations where other people may be using cannabis?

Activity 1

Cannabis use as a health and wellbeing issue

Purpose and background

To establish the wellbeing focus for all of the activities in this resource, students revisit learning about the impacts of cannabis on wellbeing with the added consideration of the harm reduction goals of a harm minimisation approach.

There are three suggested activities for you to choose from. Select a relevant combination of these to respond to your students' learning needs. These activities assume some prior learning about the links between AoD use and wellbeing.

Learning intention and NZC HPE link: Students will demonstrate understanding of the harms to personal health that may be caused by cannabis use and reduce health-related harm from cannabis use. (Depending on year level and activities selected, HPE Levels 5-6, Achievement Objectives A1&3.)

Key competencies: Critical thinking, Participating and contributing

Time: 60 minutes.

Resources

- New Zealand Drug Foundation video “Did you know: Cannabis” (also available in Te reo Māori, Chinese, Samoan, and Tongan) <https://www.drugfoundation.org.nz/info/did-you-know/cannabis/> plus the text about cannabis at <https://www.drugfoundation.org.nz/info/drug-index/cannabis/>
- Tūturu video resource: Asher <https://www.tuturu.org.nz/resource-hub/>
- Templates for activities – see copysheets

Teaching and learning process:

Activity A. Did you know video

Access online the short video *"Did you know: Cannabis"*.

1. **First screening:** ask students 'what is the video telling us about the impacts of cannabis use on people's health and wellbeing?'
2. **Ask students** to draw a representation of te whare tapa wha (or other model that shows the physical, social, mental and emotional, and spiritual dimensions of wellbeing) in their learning journal.
3. **Second screening:** Students' record on the model the impacts of cannabis use on wellbeing mentioned in the video.
4. **Ask students** what else can be added, especially to the dimensions not specifically mentioned? These ideas may need to be surmised based on these effects about impact on other dimensions. In addition, the text about the impacts of cannabis on health are provided on the New Zealand Drug Foundation website.

Activity B. Tūturu video: Asher and cannabis use

(For seniors – requires understanding of risk and protective factors)

1. **Access online the Tūturu video about Asher** who is talking about cannabis use. Note there are 3 video segments – each a few minutes long. The first is Asher's friends talking about him. The next video is Asher talking about his cannabis use, and the third video is the same video of Asher with the addition of captions highlighting the protective factors.
2. **Ask students** to recall understanding of risk and protective factors and how these relate to wellbeing.
3. Instruct students to use the '*Protective factors related to reducing harm from cannabis use*' copysheet to guide the recording of ideas from the video. **Students complete the sheet individually** as they view the video and then discuss the summary questions before completing this section.
4. Once the summary section is complete, **share some of the ideas** discussed in groups with the class.
5. **Debrief: Ask the class to respond to the question:** 'Do you think Asher will have a healthy future or do you think his cannabis will cause him more harm? Explain your judgement. Regardless of your answer, what do you think he still needs to change in his life to increase the likelihood of a healthy future?'

Activity C. Reducing cannabis-related harms (wellbeing wheel)

This activity aims to combine students understanding about the dimensions of wellbeing with personal, interpersonal and societal considerations related to cannabis use.

1. **Provide each student** (or pairs of students) with a wellbeing wheel template – see copysheet. The centre sections are already filled in.
2. **Guide the students about how they need to fill in the wheel:** In the 24 segments in the outer circle (6 segments for each dimension and 2 for each of P-IP-S), record ONE idea in each segment that relates the dimension, with P, IP or S segment AND makes a connection with a situation that would reduce harm from cannabis use in the short term and/or long term. Some examples are provided below.
3. **Students can access resources** from any previous activities as a source of ideas.

e.g. (1) reducing harms from cannabis use, (2) mental and emotional wellbeing, (3) family support (IP) to stay in education, (4) more likely to go onto tertiary study and gain meaningful employment/less likely to become involved in crime

e.g. (1) reducing harms from cannabis use, (2) spiritual wellbeing (3) personal (P) attitudes, values (and skills), and a sense of purpose/goals in life that result in healthy choices being made about non-use of cannabis, (4) maintain a sense of belonging and connection to people and things that support wellbeing (without distractions from drug use)/personal identity (what makes you, you) based around matters that are important for long term wellbeing, not drug use/have choices in life (choices are not limited by health and social complications arising from drug use).

4. **Debrief:** Which parts of the wheel were easier/harder to fill in? Why do you think this was the case? Ask students to share a selection of examples for each dimension, focusing particularly on those aspects that they deemed more challenging to complete.

Evidence of learning:

Student learning journal entry / artefacts that provide evidence of learning:

- Students file the completed learning artefacts from the selected activities in their learning journal for ongoing use.

Teacher knowledge and support resources:

- It is not expected that teachers (or students) will learn detailed pharmacological and medical knowledge about the effects of drugs on the body – but they should know where to find reliable and up-to-date sources of such information should there be a need to respond to a question. The New Zealand Drug Foundation is recommended as the source for all information about drugs and drug-related harms from a New Zealand policy perspective.

Teacher reflection on and evaluation of the activity:

- (As related to the selected activities.) How 'informed' do students appear to be about the impacts of cannabis use on youth health and wellbeing? Were any of their comments concerning (such as those that may not see a problem with adolescent cannabis use)? How will you respond to this (e.g. does it require a conversation with the school counsellor, or is it the sort of concern that could be used to frame a future discussion or activity?)
- Did these activities surface any misunderstandings about the impact of cannabis on health and wellbeing (e.g. popularised myths)? What opportunities are there in subsequent activities for addressing this?

Protective factors related to reducing harm from cannabis use

As you view the videos about [Asher](#) record:

1. The **risk factors** that may contribute to cannabis related harm for Asher in future.
2. The **protective factors** that could contribute to reducing the impact of cannabis related harm for Asher in future.

	Asher's friends	Asher's own comments
1. Risk factors		
Personal attitudes, values, beliefs, behaviours		
Interpersonal (relationships and interactions with others)		
Community or societal factors		
2. Protective factors		
Personal attitudes, values, beliefs, behaviours		
Interpersonal (relationships and interactions with others)		
Community or societal factors		

Summary: To reduce possible cannabis related harm in future...	Your response - describe the action and why this would enhance the protective factors and support Asher's wellbeing
What is one change Asher could make to support his own wellbeing?	
What could a friend Asher's, or an adult in his life, do to help him?	
What support could Asher expect from his community?	

Wellbeing wheel - harm reduction for achieving wellbeing



Activity 2

Are all cannabis products 'the same'?

Purpose and background

This activity requires students to check their understanding about the various forms in which cannabis is used and the implications of this for health and wellbeing.

Learning intention and NZC HPE link: Students will demonstrate understanding of the different forms of cannabis and the implications of these products for health and wellbeing. (*HPE Level 6/7 Achievement Objective D3*)

Key competencies: Using language, symbols, and (visual) texts

Suggested time: 30 minutes.

Resources

- Information about cannabis from the New Zealand Drug Foundation at <https://www.drugfoundation.org.nz/info/drug-index/cannabis/>
- If required, the New Zealand Drug Foundation website has information and an animated video about synthetic cannabis at [drugfoundation.org.nz/didyouknow](https://www.drugfoundation.org.nz/didyouknow).
- The Ministry of Health website contains information about prescribing medicinal cannabis products <https://www.health.govt.nz/our-work/regulation-health-and-disability-system/medicines-control/medicinal-cannabis/prescribing-medicinal-cannabis-products> and the NZ Drug Foundation has easy-access information about The Misuse of Drugs (Medicinal Cannabis) Amendment Act <https://www.drugfoundation.org.nz/policy-and-advocacy/medicinal-cannabis/>

Teaching and learning process:

This activity is intended to provide brief consideration of the range of cannabis products.

1. **Ask students** to recall from prior learning their understanding about different types of cannabis products and how these are used. Note these on the board or collate the ideas on a digital app that can be viewed by the class.
2. **Ask students** what they understand about which forms of cannabis are more harmful and why.
3. Make the copysheet available to all students (print or digital) and **allocate one section to each group** (i.e. items 1-3, with more than one group completing each section).
4. **Check students' understanding** of meanings of words like 'regulation', 'potency' and 'THC'.
5. Using their existing knowledge, the information on the NZ Drug Foundation website, **groups respond to the questions.**
6. **Provide a way** for all information to be collated into one document for use by all students.

Evidence of learning:

Student learning journal entry / artefacts that provide evidence of learning:

- Students file the completed copysheet in their learning journal and complete this statement: "What I now know about the different forms of cannabis (that I didn't previously know) includes..."

Teacher knowledge and support resources:

- It is not expected that teachers (or students) will learn detailed • As noted in the introduction, teachers of health education do not necessarily have a head full of up-to-date content knowledge about drugs. The New Zealand Drug Foundation is recommended as the source for all information about drugs and drug-related harms from a New Zealand perspective.

Teacher reflection on and evaluation of the activity

- Did it appear students' existing knowledge about forms of cannabis and impacts on health and wellbeing were well informed, misinformed, or lacking altogether?
- Although highly detailed pharmacological or medical knowledge about the effects and health impacts of cannabis is not a priority for learning in health education, is there any information that would be useful to include in order to address misconceptions or challenge myths and assumptions about cannabis? If so, what information are students currently lacking, what will you use as a reliable source of information, and how will you introduce this information to the learning programme?

The potency of cannabis and cannabis products

Use information about cannabis from the New Zealand Drug Foundation at <https://www.drugfoundation.org.nz>

Forms of cannabis	What does the information about these cannabis products say about their potency (especially THC levels)?	What would this suggest about the implications for health and wellbeing if this product was used by young people?
<p>1. Raw cannabis – fresh or dried plant material (including seeds) with no additives. It can be smoked, vaporised or consumed with food or drink.</p>		
<p>2. Cannabis resin and other concentrates – this includes concentrated products like oil, wax or resins</p>		
<p>3. Cannabis infused products – edibles, drinks, lotions and patches which are used without smoking or inhaling. These can be made with varying levels of potency</p>		
<p>4. Medicinal cannabis products used for managing symptoms of some health conditions (e.g. managing pain, reducing nausea, or increasing appetite) - see <i>The Misuse of Drugs (Medicinal Cannabis) Amendment Act</i> passed in December 2018.</p>		
<p>5. So-called 'synthetic cannabis'.</p>		

Activity 3

Reliable information or misinformation about cannabis?

Purpose and background

Some lobby groups and individuals who support one or other position (for or against) emotive and controversial social issues may resort to using misinformation to support their cause. For some years now social media has provided a platform from which to promote these misinformed messages and in some cases create 'fake news'. This activity provides students with a range of guidelines for selecting credible and reliable information and recognise misinformation and 'fake news'.

It is expected that this activity will build on other learning about using credible and reliable sources online.

Learning intention and NZC HPE link: Students will demonstrate understanding of credible and reliable sources of information.
(Skill development required for carrying out an inquiry or investigation.)

Key competencies: Critical thinking, Using language, symbols, and (visual) texts

Digital fluency: Developing students' digital citizenship using critical thinking skills online

Time: 30 - 60 minutes.

Resources

- Copsheet – one per person
- If useful, a series of PowerPoint slides for critiquing whether or not information source is reliable is provided with the Tūturu English resources see *Evaluating resources: Reliable, useful, credible?* <https://www.tuturu.org.nz/resource-hub/>

Teaching and learning process:

1. **Recap on prior learning** about using credible and reliable information in health education – what is meant by this and some of the guidelines students use to decide what is credible and reliable information.
2. **Distribute a copysheet** to each students. Part A: Working in groups of 4-6, students decide which items on the list are major, moderate, or minor concern, or of no concern when deciding credible and reliable information.
3. Once this is complete, **students pair off** and take an equal share of the items on the list and complete Parts 2&3. They may decide they need to change their 1-4 rating, in which case, note this and discuss it later with the whole group.
4. Once this has been completed, **these ideas are shared** with the rest of their group and a record of all responses is made for future use.
5. To 'test' a few of these ideas, students working in their larger groups **respond to the items in part B**.
6. Activity 6 extends this activity for senior students.

Evidence of learning:

Student learning journal entry / artefacts that provide evidence of learning:

- Students file a completed copy of the copysheet listing their priorities for what to look out for when selecting credible and reliable information.
- In their learning journal students respond to the question: "Which of these items listed do you find the most difficult to decide upon? Why is this? What else do you think you need to learn to get better at selecting credible and reliable information?"

Teacher knowledge and support resources:

- If an alternative approach is required, there is a wide range of ready-to-use materials available online for developing students' capabilities for recognising fake news and selecting credible and reliable sources of information.

Teacher reflection on and evaluation of the activity:

- How well developed are student capabilities for recognising credible and reliable sources of information online? What is your evidence for this?
- What skills do (some) students need to learn? What resources are available for this?

Reliable information or misinformation?

Imagine you are part of a research group seeking to find information about the impact of cannabis use on young people's health and wellbeing. Your team is finding *a lot* of information about cannabis online but you are unsure which information is 'credible' and 'reliable', and which is misinformation or 'fake news'. After finding out more about what is meant by 'fake news' and misinformation, the group has come up with a list of things they need to look out for (left hand column) when selecting online material.

PART A. Prioritising

1. In the centre column*, decide if each item on the list is (1) a MAJOR concern, (2) a MODERATE concern, (3) a MINOR concern, or (4) NO concern, for deciding what is credible and reliable information about cannabis.
2. For the MAJOR and MODERATE concerns, describe in the right hand column what you would look for INSTEAD.
3. For the little-no concern items, briefly state why you think this is not a concern.

Concern	*	What you would look for instead OR why it is not a concern?
i. It seems too good to be true and you don't think should share it in case it makes you look silly		
ii. You are not sure how the author of the article would get hold of the information in the first place		
iii. There are no quotes from experts or others involved, or links to other supporting materials, or references to say where the author got their information from		
iv. Past headlines that you have read about the issue bear no similarity to this article and the information provided disagrees with what you already know about the topic		

<p>v. You can't find a reputable news site or other website source that confirms the story</p>		
<p>vi. The article has been widely 'liked' on social media</p>		
<p>vii. The 'about us' section of the website makes you doubt how reputable the source is or the so-called 'experts' in the field do not seem to be qualified to be giving expert advice</p>		
<p>viii. You don't recognise who is the source is, or if it was it created by a well-known organisation or known expert</p>		
<p>ix. The website is not a NZ site</p>		
<p>x. The URL does not include .govt .org .ac (or .gov and .edu are overseas versions of these)</p>		
<p>xi. You can't confirm that the information agrees with at least three other sources that are also reliable</p>		
<p>xii. You can't find any date that would show how up-to-date is the information is</p>		
<p>xiii. The information doesn't appear to be copyright (copyright usually suggests someone owns the information and wants this recognise)</p>		
<p>xiv. You are unsure whose interests are being served by the article</p>		
<p>xv. You see that an article has 'gone viral' online and been shared many times</p>		
<p>xvi. You don't recognise the source as an educational information site - it seems to be a lobby group website</p>		
<p>xvii. You find several versions of an article but every version has changed the details a little.</p>		



PART B. Putting ideas to the test

You find material online that:	Would you choose this article(s) or website(s)? Why or why not? If not, what else would you look for to convince you it was reliable?
<p>Seems like an interesting news item about the dangers of cannabis use on young people. There are horrific details about damage done to their teenage bodies and pictures of older people looking like that have had horrendous past experiences.</p>	
<p>Differs in the way it is reported across different news sources. For example, the age of the boy who got caught with drugs at school is different in each article, or that in one article he was under the influence of alcohol (i.e. drunk) and in another article he was intoxicated by cannabis.</p>	
<p>None of the medical information about cannabis appears to be coming from medical professionals, or none of the legal information is being written by lawyers and policy makers.</p>	
<p>Contains very personal or private information about a person's drug habits and other things about their life.</p>	
<p>Seems real enough but you can't find evidence of the quotes used in the article anywhere else.</p>	
<p>Claims it is about young people but none of the statistics are about cannabis use by this age group and the quotes are all from adult cannabis users.</p>	



Activity 4

Causation or correlation?

Purpose and background

Claims about the risks or benefits of cannabis use based on research are inconsistently reported by media. Newspaper headlines and articles often sensationalise or misrepresent the actual findings. This activity requires students to make a distinction between causal factors (of cannabis use and harms) and statistical correlations, as a way to critique claims reported about risks or benefits of cannabis

Note that this activity is an extension of Activity 5.

Learning intention and NZC HPE link: Students will understand how to judge whether claims about research data are based on proven causes or statistical correlation. *(Contributes to HPE Level 8, Achievement Objective A1)*

Key competencies: Critical thinking, Using language, symbols, and (visual) texts

Digital fluency: Developing students' digital citizenship using critical thinking skills online

Time: 30 minutes.

Resources

- Headlines from articles reporting research findings (where possible find both the original research article and the news media reporting of the research). The research article cited here as an example is: Morin, G.J-F., Afzali, M.H., Bourque, J., Stewart, S.H. Séguin J.R, O'Leary-Barrett, M., & Conrod, P.J. (2019). A Population-Based Analysis of the Relationship Between Substance Use and Adolescent Cognitive Development. *American Journal of Psychiatry*, 176(2), 98-106.

Teaching and learning process:

1. **Acknowledge previous learning** about selecting credible and reliable materials online. Ask students what they understand by the terms 'causation' and 'correlation' e.g. *causation is when the relationship between cause and effect can be convincingly demonstrated or proven with hard evidence, and correlation is a mutual relationship or connection between two or more things, usually decided as a consequence of carrying out statistical testing.*
2. **Provide students** with the copysheet containing a news headline reporting cannabis research as well as the title of the original article, and some brief information about the study carried out.
3. **Guide students** through the discussion either as a whole class, or a combination of group work and whole class discussion.
4. **Acknowledge** that this task is quite 'hard' – and that's a key point – how do we know what to trust when we read newspaper articles if we're not sure what the research is saying?

Teacher information for guiding students through the copysheet task:

- Discussion prompts related to the newspaper headline (data that researchers would need to collect based on the study indicated by the newspaper headline): *Researchers would need to track a large group of cannabis using and non-cannabis using students across several years of school; get students to keep detailed diaries cannabis use over that time, or drug test them, or trust that students truthfully report their cannabis use in a survey; collect diagnostic data from medical examinations about students' physical and mental health over time; eliminate or account for health impacts from other causes like alcohol use, poverty, social deprivation or exclusion (and much more besides) – this point is important as so many studies can't account for other factors and that's where statistical modelling becomes essential (but as it's very complex it can be misrepresented). Noting that with well-funded population studies going on in some countries there is research work like this occurring.*
- Discussion prompts related to the original study - *the full article shows that extensive statistical analyses were carried out on all of the data collected and the data presents the findings as correlations – and not as a proven causal relationship. The 'lag' in cognitive ability was based around the results of a succession of cognitive psychological tests used by the researchers, not grades from learning at school. All drug and alcohol use was self-reported using a questionnaire – discuss with students how reliable they think self-report measures are (noting statistical analyses can allow for this).*
- Prompts for discussion about the problem of accessibility to academic articles (and having to reply on popular sources like newspapers) – *as many academic*

research papers are inaccessible to secondary school students (in that they require university library access or the language is beyond what most secondary school students can be expected to understand) we often rely on 'reputable' news sources to interpret studies for us. But to what extent can we trust that the journalists (and organisations or groups who report or use research findings) know enough to do this ethically and responsibly? At secondary school level we not always able to be absolutely sure so it is important that any data and information selected to support a case relates to several of the considerations listed in Activity 5. NGOs (non-government organisations – many of the .org websites such as NZ Drug Foundation, Health Promotion Agency, Mental Health Foundation, Family Planning) have experts to interpret research on health and wellbeing topics, so their reporting of research (when this made available) should be more reliable than many news sources.

Evidence of learning:

Student learning journal entry / artefacts that provide evidence of learning:

- Students file any notes produced from this discussion in their learning journal.
- In their learning journal students respond to the question: 'In future when I read newspaper headlines about drug research and young people I will '

Teacher knowledge and support resources:

- Teachers own study pathways may or may not have exposed them to the type of research featured in this activity. If not, consider finding out something about the principles of statistical analyses (in particular statistical correlation) from a mathematics teacher, or senior students taking statistics courses.

Teacher reflection on and evaluation of the activity:

- How challenging was this activity for you? Is this sort of critique something you have experience of from your own study?
- Did students make enough sense of this activity for it to be useful and achieve its intentions? If not, how could you reframe this activity, bearing in mind that students will be more likely accessing newspaper reporting over less accessible academic journal articles?

Information	Discussion
<p>Newspaper reporting:</p> <p>'Cannabis can affect teenagers so severely that they end up three years behind their classmates, study finds'</p> <p>This same headline was re-used across several news sites in a number of countries.</p>	<ol style="list-style-type: none"> Based only on this headline, what sorts of data do you think researchers would have to collect to find this out? Do you think the newspaper is making out that cannabis is causing these effects OR that there is a correlation between cannabis use and teenagers ending up 3 years behind their peers, OR is it too hard to tell from only the headline? Explain your reasoning.
<p>Original article title that this newspaper headline above was based on:</p> <p>'A Population-Based Analysis of the Relationship Between Substance Use and Adolescent Cognitive Development'</p> <p><i>Briefly, the study involved 3,826 7th graders in Montreal, Canada being tracked over 4 years. At year 1 of the study 95% had never used cannabis, and 0.37% used it every day. By year 4 of the study 71% of the students (now 11th graders) had never used cannabis and 2% used cannabis every day. The 'lag' in cognitive ability was based around the results of a succession of cognitive tests, not actual grades from school work. All drug and alcohol use was self-reported using a questionnaire.</i></p> <p>This article is very dense academic report with high level statistical analyses.</p>	<ol style="list-style-type: none"> Based only on this brief account, do you think the researchers are making out that cannabis is causing these effects OR that there is a correlation between cannabis use and teenagers ending up 3 years behind their peers, OR is it too hard to tell from only the information provided? Obviously the complete article is needed to answer this question fully but explain your reasoning based on the information provided. What other comments or questions arise when the information from the original article is compared to the newspaper headline reporting of the study? How or why could research information like this be (mis)used by groups for and against cannabis use?
<p>'Cannabis 'more harmful than alcohol' for teen brains'</p> <p>'Teen cannabis use is not without risk to cognitive development'</p> <p>'All Young Cannabis Users Face Psychosis Risk'</p>	<p>Repeat Q1&2 from the discussion above using one of these headlines, or use an online search to find other newspaper headlines and the original article the news item is based on.</p>

Activity 5

Who is for and against cannabis use in New Zealand – and why?

Purpose and background

Controversial and divisive social issues inevitably brings together groups of like-minded people to lobby for the cause or the position they support. Campaigning and advocating by these lobby groups then tries to influence others to think the same way as them. This activity requires students to investigate the New Zealand lobby groups for and against cannabis use, what do these groups value and believe and whether their position is backed up by credible and reliable information.

Learning intention and NZC HPE link: Students will compare and contrast views about cannabis use held by groups in the community. (HPE Level 6, Achievement Objective D3)

Key competencies: Critical thinking, Participating and contributing

Digital fluency: Accessing relevant material online and selecting information that responds to key questions.

Time: 30 - 60 minutes.

Resources

- Online access to websites of cannabis lobby or interest groups, or press releases from organisations.
- Copsheet of questions.

Teaching and learning process:

1. **Ask students** to name any cannabis-related interest or lobby groups they already know about. List these on the board.
2. **Guide students** in an online search to find other New Zealand based organisations who are 'on record' as having a position on cannabis use e.g. New Zealand Drug Foundation, 'Health Not Handcuffs', NORML, Family First, Say no to dope, SHORE (Massey University research group), etc.
3. Students working in small groups select one lobby or interest group and, after locating the organisation website, or sourcing statements released by an organisation, **answer the questions** listed in the copysheet. Each group makes a (maximum) one page summary of their responses.
4. **Encourage students** to refer back to their learning in Activities 5 and 6 when responding to the questions about the credibility of the evidence these groups are using to promote their cause or their position.
5. **Students share their findings** with the class and compile all summary sheets into one document for use by the class (required for Activity 9).

Evidence of learning:

Student learning journal entry / artefacts that provide evidence of learning:

- Students file the summaries from each group for use with the activities following.

Teacher knowledge and support resources:

- In order to guide students toward suitable online sites (especially if students are unaware of these) it is helpful for teachers to make a prior list of local and national organisations and interest groups.
- Don't be unduly limited by using only named organisations and groups for this activity. Some groups may not have a formal structure or organisation but can be described based on their role in the community, group affiliation, common connections, or shared beliefs.

Teacher reflection on and evaluation of the activity:

- How readily were students able to access relevant information to respond to the questions on the copysheet?
- How much support did they need to recognise the position of the organisation/ group, their values and beliefs and the 'evidence' they were using to make their case? What are the implications of this for developing student digital fluency and digital citizenship in other health education contexts?

Organisations or groups for and against cannabis use in New Zealand

Name of the organisation or group	
Organisation website URL (or other sources of information about a group)	
What is (or are) their main message(s) about cannabis use? Include any slogans or campaign details where these exist.	
What is the basis for their position? What information do they quote or refer to in order to make their case, or support their cause?	
What are the values and beliefs of this organisation or group? <i>(You may need to infer this from their online material.)</i>	
Is the argument for or against, as presented by the group, about a moralistic sense of right or wrong to do with cannabis about use in general, or health and wellbeing considerations, or something else? <i>(Again you may need to infer this from their online material.)</i>	
Do you think this organisation or group is coming from an 'individual rights' or a 'greater/ common good' position (or a bit of both)? What is your evidence for this judgement?	
In your judgement, is this organisation or group using credible information to support their case? What is your evidence for this?	
(Optional) Include any other information you think is worth sharing about the views of this group, especially as it relates to other learning in health education.	

Activity 6

Ethical thinking and cannabis use

Purpose and background

For senior students. Students are provided with an ethical thinking framework to think about the views for and against cannabis use. *This activity requires the use of the information from Activity 7.*

Learning intention and NZC HPE link: Students will analyse cannabis use from an ethical perspective. (HPE Level 8, Achievement Objective A3)

This activity is for senior students and maybe used to introduce a unit leading to assessment with Achievement Standard AS91464 Analyse a contemporary ethical issue in relation to wellbeing.

Key competencies: Critical thinking, Participating and contributing

Digital fluency: Developing students' digital citizenship using critical thinking skills online

Time: 60 minutes as an introduction (or several weeks if being used as a topic for assessment with AS91464)

Resources

- Copsheet of the framework for ethical thinking – this activity uses *A Framework for Ethical Decision Making* from the Markkula Center for Applied Ethics <https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/a-framework-for-ethical-decision-making/> - other ethical thinking principles or frameworks can be used instead of this.

Teaching and learning process:

If this activity is introducing a whole unit on ethical dilemmas, explain this activity in that context. Alternatively, if this is a one-off activity, make links with previous activities where it was apparent the debates 'for' and 'against' an issue posed a dilemma (i.e. a situation in which a difficult choice has to be made between two or more alternatives, especially a situation where the argument can be equally for or against).

1. **Ask students** what they think 'ethics' is about – as distinct from morals. If required, look for dictionary-type definitions to construct a common understanding of 'ethics' as distinct from morals (it can be confusing). Ethics refers to **standards of behaviour** that tell us **how we should act** in the wide range of life situations in which find ourselves. Although morals also talk about standards of behaviour the emphasis is more on a personal sense of 'right' and 'wrong' rather than standards or 'rules' or guidelines for expected behaviour.
2. **Ask students** to debate what they think is ethical or unethical in each of these (or other selected) situations:
 - a. Taking credit for another person's work or copying another person's work and claiming it as their own (plagiarising).
 - b. Sacrificing a healthy child to save another in the family with a disease.
 - c. Compassionate passes in assessments when a person experiences a major loss at the same time as an exam.
 - d. Whistleblowing – when a person exposes information or activity that is deemed wrong or illegal, unethical, or not correct within an organisation.
 - e. Hiring family members over people more qualified for the job (nepotism).
 - f. Doing personal work or conducting own business when being paid by an employer to work for them.
3. **Ask students** why acting or behaving ethically is important for promoting wellbeing. The copysheet may provide some hints for answering this if students are stuck for ideas.
4. **Explain** that in order to help understand what is (un)ethical in a range of situations it is helpful to use a set of principles or standards to draw attention to the beliefs and values of the people for or against an issue, in order to help understand why they are for or against the issue.
5. **Provide** groups of students with the copysheet listing the standards for ethical thinking and **support them to complete the task** described – that is, to think about the organisations and groups for and against cannabis use identified in Activity 7, and which group(s) they think reflect each of these ethical standard(s), as well as their evidence for this. They may not end up with examples for each ethical standard, and more than one example for others.

Evidence of learning:

Student learning journal entry / artefacts that provide evidence of learning:

- Students file their summary in their learning journal and answer the following question. “What did the use of the ethical standards add to your understanding about the values and beliefs of the groups for and against cannabis use?”

Teacher knowledge and support resources:

- Teachers may have knowledge of and use other sets of ethical thinking principles or standards for this activity. That said, this version of such a resource is particularly useful for its alignment with the underlying concepts of HPE.

Teacher reflection on and evaluation of the activity:

- This activity provides only a brief introduction to ethical thinking. Developing students’ knowledge and skills for ethical thinking requires substantial focus in the learning programme. What did you notice about students’ capacity for thinking ethically and the knowledge and skills that could be developed in future? In which future learning contexts could their ethical thinking knowledge and skills be developed?

Ethical thinking and cannabis use

Ethics refers to **standards of behaviour** that tell us **how we should act** in the wide range of life situations in which find ourselves.

Ethics is not the same as feelings nor is it about following culturally accepted norms. Ethics is not following the law, so although a 'good' system of law includes many ethical standards, some laws can stray from what is ethical. Similarly, ethics is not religion as not everyone is religious but ethical behaviour applies to everyone. Most religions advocate high ethical standards but at times do not address the wide range of societal problems. Also, ethics is not science for although social and natural science can provide important information to help people make better ethical choices, alone science does not tell us what we should do.

Ethical Standards	Thinking about the organisations and groups for and against cannabis use identified in Activity 7, which group(s) do you think reflect each of these ethical standard(s)? What is your evidence for this? <i>You may not end up with examples for each standard, and more than one example for others.</i>
The Utilitarian Approach: the ethical action is the one that provides the most good or does the least harm, or produces the greatest balance of good over harm.	
The Rights Approach: the ethical action is the one that best protects and respects the moral rights of those affected e.g. the rights to make our own choices about what kind of life to lead, to be told the truth, not to be injured, to expect a degree of privacy, etc.	
The Fairness or Justice Approach: these ethical actions treat all people equally - or if unequally, then they are still treated fairly based on some standard that can be defended.	

The Common Good Approach: that life in a community is a good in itself and our actions should contribute to that life. This approach draws attention to the common conditions that are important to the welfare of everyone e.g. laws, social and justice services, health care, public education, public recreational areas, etc.

The Virtue Approach: that ethical actions should be consistent with certain ideal virtues (behaviour showing high moral standards) that provide for the full development of our humanity.

For a more detailed description of these principles see A Framework for Ethical Decision Making from the Markkula Center for Applied Ethics <https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/a-framework-for-ethical-decision-making/>

Activity 7

Educating young people about cannabis

Purpose and background

Education about cannabis use has been a part of health education for decades. In this activity students are asked what education they think they will need to support their wellbeing now and in the future, and help them to manage situations where other people may be using cannabis.

Learning intention and NZC HPE link: Students will design an overview of an educational programme for young people that contributes knowledge and skills required for reducing harm from cannabis use.

(Depending on year level, NZC levels 5-8, Achievement Objectives D2&3)

Key competencies: Critical thinking, Participating and contributing

Time: 60 minutes *(or several lessons within a unit if being developed in depth at senior secondary level).*

Resources

- The resources from all previous activities and student learning journals.

Teaching and learning process:

- 1. Pose the scenario** that the local community, including the local secondary schools, have agreed to work together to design an approach to educating youth about cannabis. The secondary schools in the region have been asked specifically for their ideas (including what they already do) that could contribute to this community wide approach.
- 2. Preparation: Ask students** to construct a mindmap using a selection of the ideas listed in the copysheet. At the centre of the mindmap students need to write the statement 'what do we need to prepare students for if they are to live in a world where drugs like cannabis exist?'. Either cut and paste these ideas onto a mindmap, or rewrite words using added ideas of their own. Once they have considered all of the ideas (they may not want to use them all), students add in more ideas of their own that respond to the central question.
- 3. Invite students to share** their mindmap with another group or the class, highlighting new ideas they added.
- 4. Explain to the class** that they are now going to turn those ideas about what students need to be prepared for, in actual examples of actions that could be included in an action plan. Model some examples e.g. learn from own or others mistakes could be about learning how to use problem solving or decision making skills
- 5. Working in groups, students identify** a range of possible actions, strategies or approaches using the prompts provided in the copysheet. The schools have been asked to use the New Zealand Drug Foundation catch-phrase 'preparing students to live in a world where drugs (like cannabis) exist' as a focus for their ideas.
6. Depending on time available, groups can either be allocated 2-3 sections of the plan and share these ideas with other groups, or undertake the whole plan themselves.
7. Where this learning is to be part of a major unit of work assessed by an NCEA Achievement Standard, **provide an opportunity for students** to combine all of their ideas into one file as a resource for later use.
- 8. Debrief: Ask students:** How do they think they will be able to have a voice in the development of education programmes that aim to reduce cannabis-related harms for youth?

Evidence of learning:

Student learning journal entry / artefacts that provide evidence of learning:

- Students file their planning document.
- After reflecting on the breadth and depth of education required, students respond to the question: "What can you see will be the main barriers and enablers to achieving the primary objectives of cannabis-related education and reducing cannabis-related harms for youth."

Teacher knowledge and support resources:

- To extend the scope of this activity for senior classes, models of health promotion that highlight culturally responsive approaches (more relevant for some communities), and research-based approaches that show the type of actions that work, could be added to enhance the depth of learning about the type of education and health promoting actions required.

Teacher reflection on and evaluation of the activity:

- Is this cannabis context a useful one for developing students' ideas about the process of health promotion and strategies that work to change health behaviours, or are there context-specific considerations beyond the scope of what students know about? E.g. does the fact that the current (criminal) law, as well as the ethical and moral issues surrounding cannabis use add complications to learning about the process (taking health promoting action, and models for doing this)?

Mindmap:

'What do we need to prepare students for if they are to live in a world where drugs like cannabis exist?'

Items for the mindmap. You can add to these ideas with more of your own as you construct your mindmap. You may decide that there is no need to prepare students for some of these things, in which case you can leave them out.

Knowledge about the law and cannabis regulations	How to cope with changes in life – especially changes like losses and disappointments	Peer pressure and resisting pressure to use cannabis
Knowledge about health-related cannabis harms	Recognising unhealthy or harmful cannabis behaviours in self or others	The price of cannabis products and how this money could be better spent
Knowledge about the social harms of cannabis use	Recognising when they might need help with personal issues	Knowledge about school policies related to cannabis use
Learning from own or others mistakes related to cannabis use	Cannabis (drug) culture in some communities	Social expectations from friends or family about cannabis use
Knowing where to access appropriate support for personal problems	Ways of relieving boredom or loneliness	Challenging others cannabis use when it's causing them harm
Ways to avoid situations where cannabis use is common	How to be assertive and say no to cannabis use	Know where to find reliable information about safer ways to use cannabis
Religious or other cultural values about cannabis	Challenging others cannabis use when it's causing someone else harm	Alternatives to cannabis for managing stress
Knowledge about workplace policies related to cannabis use	Knowledge of driving and drug use limits	Recognising when other people are under the influence of cannabis
Knowing how to help a person who has used a lot of cannabis and is experiencing negative effects of this	Knowing how to help a person experiencing an adverse reaction to cannabis (even a small amount)	Knowing where to get help for a person experiencing an adverse reaction to cannabis
Ways to have hope and goals in life (like staying in school or being involved in something important and worthwhile)	Knowing about different cannabis products	Knowledge about use of cannabis and safety guidelines e.g. using machinery in the workplace
<i>Add other ideas...</i>		

Health promotion and education framework for school communities

<p>Aspect of education that involves schools <i>(keep in mind that the regulations will cover age, amount of product, type of cannabis product, and where it can be used)</i></p>	<p>With a specific focus on reducing harms from cannabis use, and using a selection of ideas from your mindmap, identify an educational approach or action that responds to the idea of 'preparing students to live in a world where drugs (like cannabis) exist'.</p>
<p>Education with a focus on year 9&10 students where health education classes involve all students - <i>think about what it taught and how it is taught</i></p>	
<p>Education with a focus on years 11-13 when some students take health education courses and sit NCEA - <i>think about what it taught and how it is taught</i></p>	
<p>Education with a focus on year 11-13 students where students <u>do not</u> take health education courses - <i>think about what it taught and how it is taught</i></p>	
<p>Education for students who have experienced some form of harm from cannabis use (this includes getting caught, and lack of motivation to attend school and learn)</p>	
<p>Education for a particular (named) ethnic group within the community</p>	
<p>Student led education / health promotion for parents</p>	
<p>School (teachers and leaders) led education / health promotion for parents</p>	
<p>Education for teachers and leaders about teacher's own cannabis use or other teachers use</p>	
<p>Any other educational action you think will be necessary for your school community</p>	

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