In [1]:
```
import matplotlib.pyplot as plt
import numpy as np
import sklearn
import pandas as pd
import seaborn as sns
%matplotlib inline
```

In [2]:
```
data1=pd.read_csv("akash13.csv")
```

In [3]:
```
data1.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 473 entries, 0 to 472
Data columns (total 27 columns):
 #   Column                                    Non-Null Count  Dtype  
---  ------                                    --------------  -----  
 0   Q1                                        473 non-null    object 
 1   Q2                                        473 non-null    object 
 2   Q3                                        82 non-null     object 
 3   Q4                                        473 non-null    object 
 4   Q5                                        473 non-null    object 
 5   Q6                                        473 non-null    object 
 6   Q7                                        473 non-null    object 
 7   Q8                                        473 non-null    object 
 8   Q9                                        195 non-null    object 
 9   Q10                                       473 non-null    object 
 10  Q11                                       333 non-null    object 
 11  Q12                                       473 non-null    object 
 12  Q13                                       473 non-null    object 
 13  Q14                                       139 non-null    object 
 14  SATISFICATION                             431 non-null    object 
 15  RATING                                    431 non-null    float64
 16  RATIND FOR NO DISCIPLINE                  431 non-null    float64
 17  SATISFY 2                                 431 non-null    object 
 18  SATISFY LMS                               431 non-null    object 
 19  RATE LMS?                                 431 non-null    float64
 20  n LMSe nondisciplinary actions            431 non-null    float64
 21   LMS to avoid non-disciplinary actions?   431 non-null    object 
 22   respond to the assignments               431 non-null    object 
 23   submitting an assignment online?         431 non-null    object 
 24  WHICH ONE U LIKE                          431 non-null    object 
 25   one would you prefer.                    431 non-null    object 
 26  Online Teaching(PREFER)                   431 non-null    object 
dtypes: float64(4), object(23)
memory usage: 99.9+ KB
```

In [4]:
```
data1.head(10)
```

Out[4]:

	Q1	Q2	Q3	Q4	Q5	
0	Google Meet;Google class	Yes	Google Classroom	Google Meet	Easy Interface;Attendance can be easily monito...	
1	Google Meet;Zoom;Microsoft Teams	No, I use free platforms available	NaN	Google Meet	Easy Interface;Attendance can be easily monito...	
2	gotomeeting	No, I use free platforms available	NaN	Zoom	Easy Interface	
3	Google Meet;Zoom;Cisco Webex	No, I use free platforms available	NaN	Cisco Webex	Easy Interface;Attendance can be easily monito...	
4	Google Meet;Zoom;Cisco Webex;Microsoft Teams	No, I use free platforms available	NaN	Microsoft Teams	Easy Interface;Nuisances created by students c...	GoogleClassroom;Edmo
5	Zoom;Cisco Webex;Jiomeet	No, I use free platforms available	NaN	Cisco Webex	Easy Interface;Attendance can be easily monito...	
6	Google Meet	No, I use free platforms available	NaN	Microsoft Teams	Easy Interface;Attendance can be easily monito...	Goog
7	Google Meet;Zoom;Microsoft Teams	No, I use free platforms available	NaN	Microsoft Teams	Easy Interface (Has feature of annotations, ha...	
8	Cisco Webex	No, I use free platforms available	NaN	Cisco Webex	Easy Interface (Has feature of annotations, ha...	

	Q1	Q2	Q3	Q4	Q5
9	Google Meet;Zoom	No, I use free platforms available	NaN	Microsoft Teams	Provides facility for recording of lectures;Sm...

10 rows × 27 columns

In [5]:
```
data1.describe()
```

Out[5]:

	RATING	RATIND FOR NO DISCIPLINE	RATE LMS?	n LMSe nondisciplinary actions
count	431.000000	431.000000	431.000000	431.000000
mean	3.962877	3.821346	3.888631	3.754060
std	0.929373	0.951429	0.981994	0.992917
min	1.000000	1.000000	1.000000	1.000000
25%	3.000000	3.000000	3.000000	3.000000
50%	4.000000	4.000000	4.000000	4.000000
75%	5.000000	5.000000	5.000000	5.000000
max	5.000000	5.000000	5.000000	5.000000

In [6]:
```
data1.columns
```

Out[6]:
```
Index(['Q1', 'Q2', 'Q3', 'Q4', 'Q5', 'Q6', 'Q7', 'Q8', 'Q9', 'Q10', 'Q11',
       'Q12', 'Q13', 'Q14', 'SATISFICATION', 'RATING ',
       'RATIND FOR NO DISCIPLINE', 'SATISFY 2', 'SATISFY LMS', 'RATE LMS?',
       'n LMSe nondisciplinary actions',
       ' LMS to avoid non-disciplinary actions?',
       ' respond to the assignments', ' submitting an assignment online?',
       'WHICH ONE U LIKE', ' one would you prefer.',
       'Online Teaching(PREFER)'],
      dtype='object')
```

In [7]:
```
data1.isna()
```

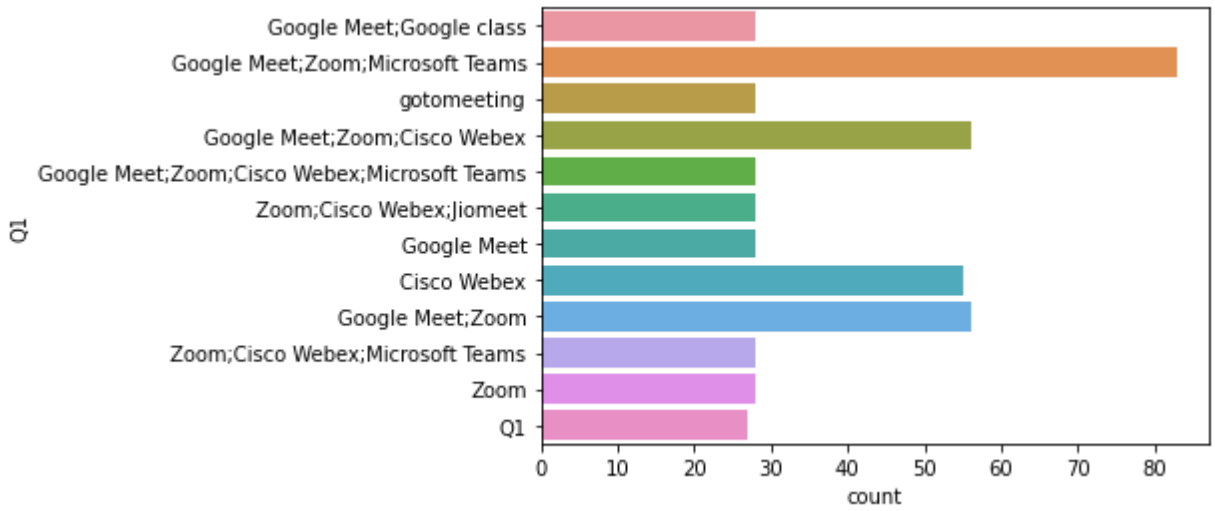
Out[7]:

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	...	SATISFY 2	SATISFY LMS	RA LM
0	False	False	False	False	False	False	False	False	False	False	...	False	False	Fa
1	False	False	True	False	False	False	False	False	False	False	...	False	False	Fa
2	False	False	True	False	False	False	False	False	False	False	...	False	False	Fa
3	False	False	True	False	False	False	False	False	True	False	...	False	False	Fa
4	False	False	True	False	False	False	False	False	False	False	...	False	False	Fa
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
468	False	False	True	False	False	False	False	False	True	False	...	True	True	T
469	False	False	True	False	False	False	False	False	True	False	...	True	True	T
470	False	False	True	False	False	False	False	False	True	False	...	True	True	T
471	False	False	True	False	False	False	False	False	True	False	...	True	True	T
472	False	False	False	False	False	False	False	False	True	False	...	True	True	T

473 rows × 27 columns

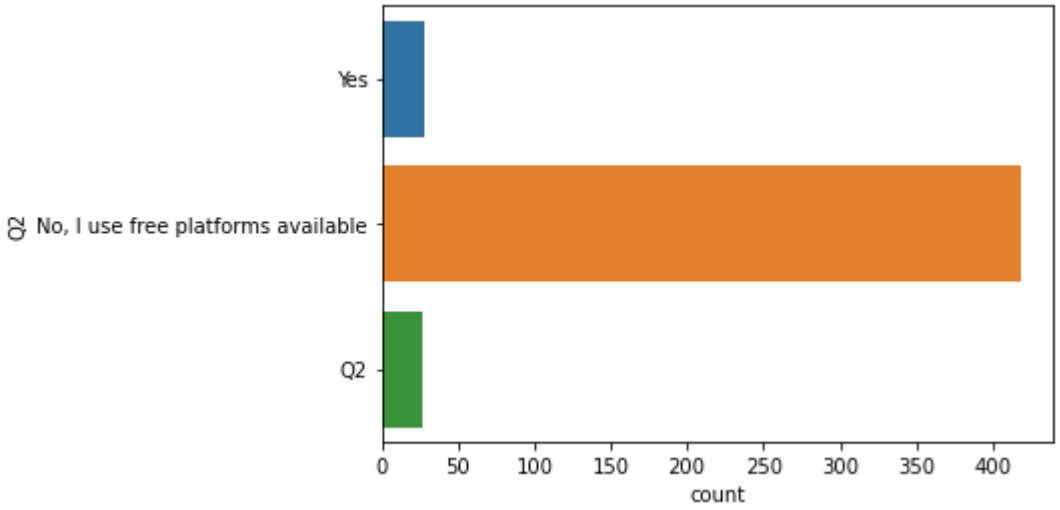
In [8]:
```
sns.countplot(y='Q1',data=data1) # which online video confrencing platform have y
```

Out[8]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x18c76aefc70>
```



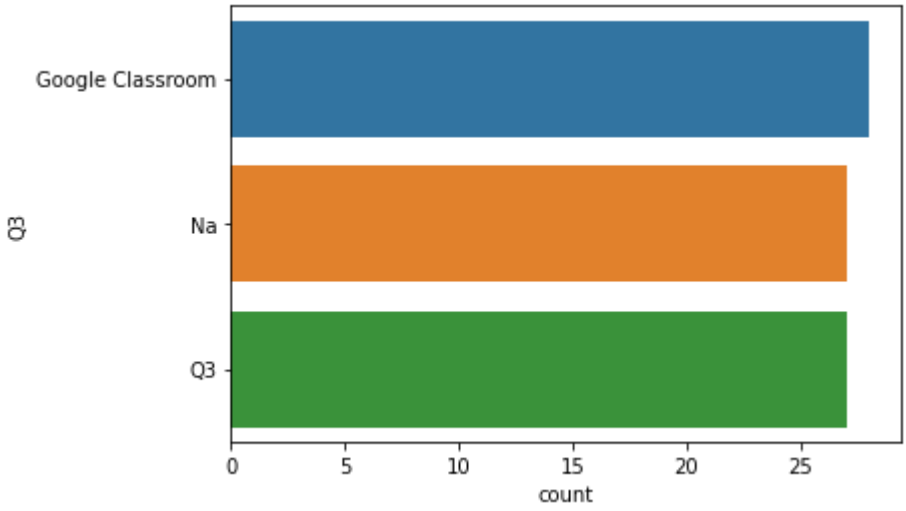
In [9]:
```
sns.countplot(y='Q2',data=data1) # have you purchased any online video confer. pl
```

Out[9]: <matplotlib.axes._subplots.AxesSubplot at 0x18c772a4820>



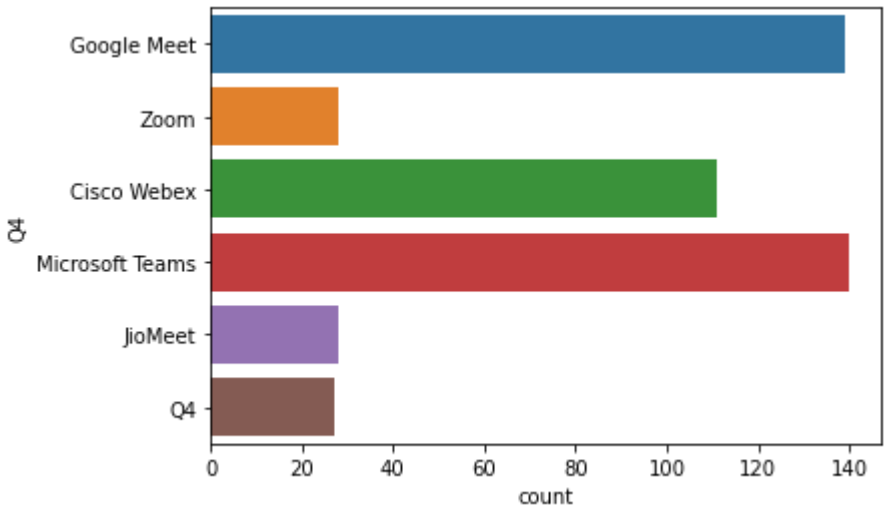
In [10]:
```
sns.countplot(y='Q3',data=data1)# if u answered yes to above question please ment
```

Out[10]: <matplotlib.axes._subplots.AxesSubplot at 0x18c7730a3a0>



In [11]:
```
sns.countplot(y='Q4',data=data1)# if asked which of the following platforms you s
```

Out[11]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x18c7735c910>
```

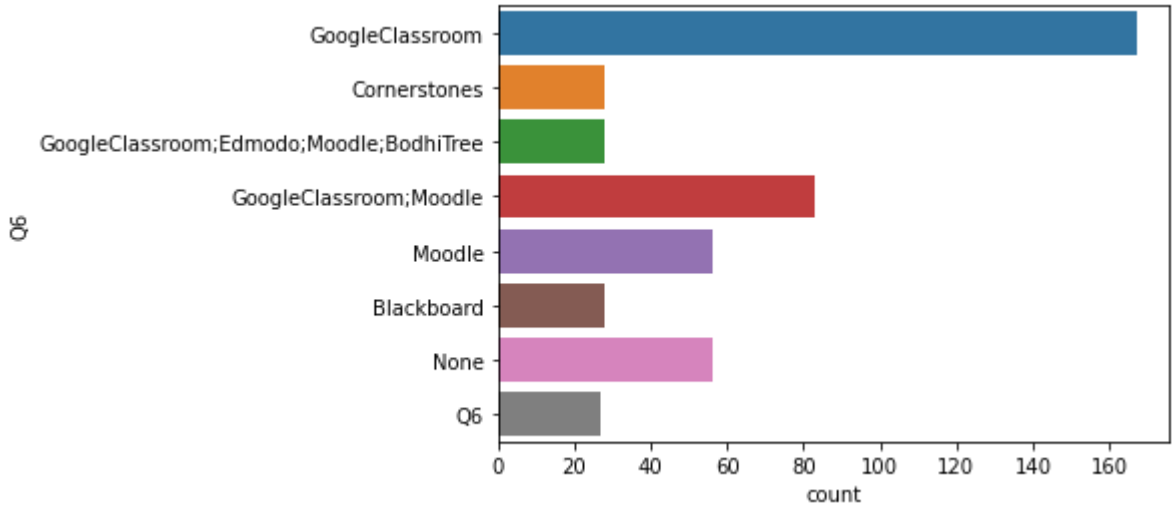


In [12]:
```
sns.countplot(y='Q5',data=data1)# please list out the advantage of your response
```

Out[12]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x18c77382e50>
```

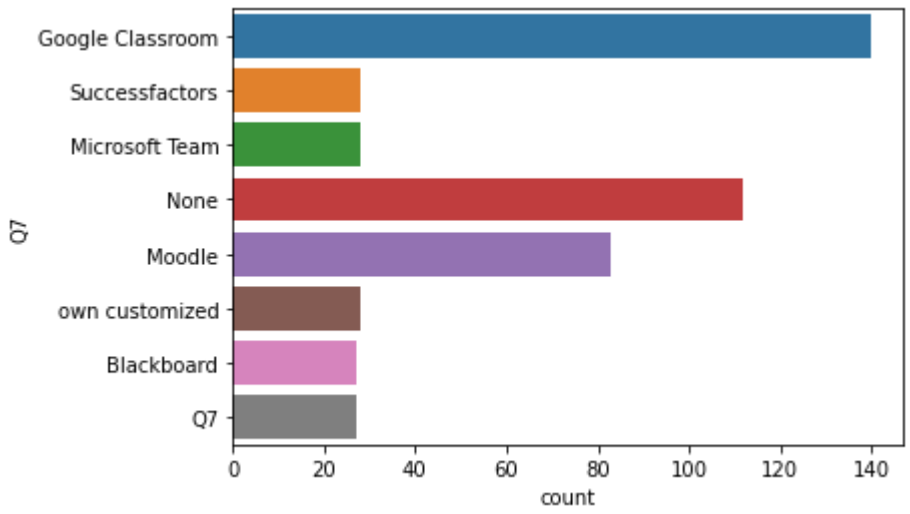
In [13]:
```
sns.countplot(y='Q6',data=data1)# which of the following lms u used for intreacti
```

Out[13]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x18c77431550>
```



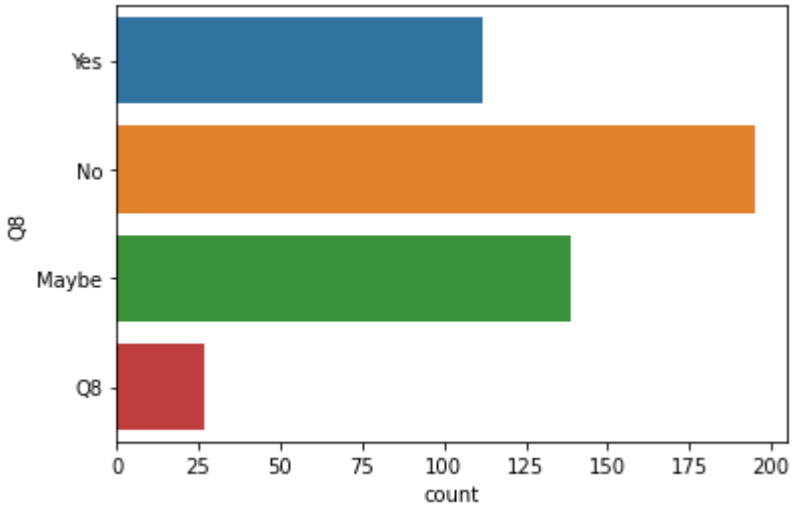
In [14]:
```
sns.countplot(y='Q7',data=data1)#which of the following your inst. suggested to u
```

Out[14]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x18c77890040>
```



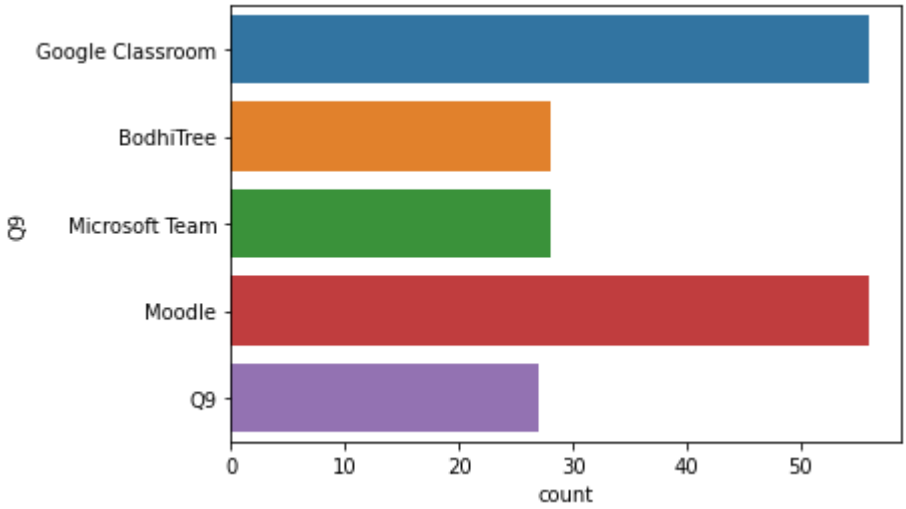
In [15]:
```
sns.countplot(y='Q8',data=data1)#has your inst. has any lms leeping in mind the p
```

Out[15]: <matplotlib.axes._subplots.AxesSubplot at 0x18c77908700>



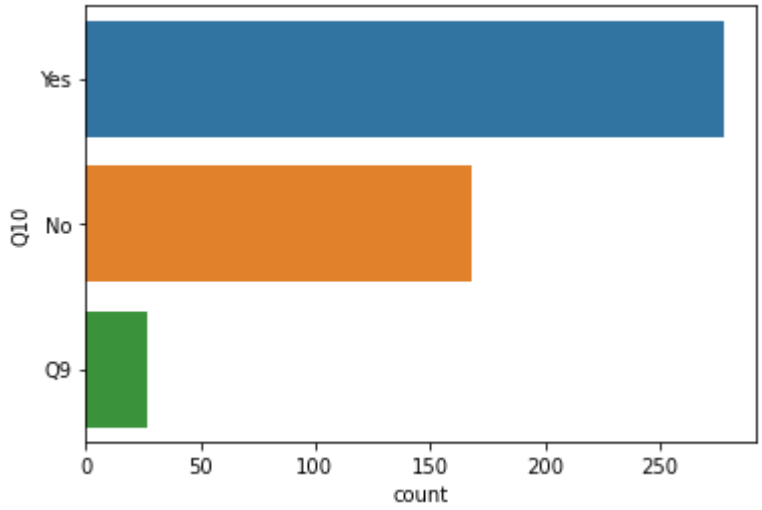
In [16]:
```
sns.countplot(y='Q9',data=data1)#if answerd yes to Q8 please select the lms of yo
```

Out[16]: <matplotlib.axes._subplots.AxesSubplot at 0x18c77953cd0>



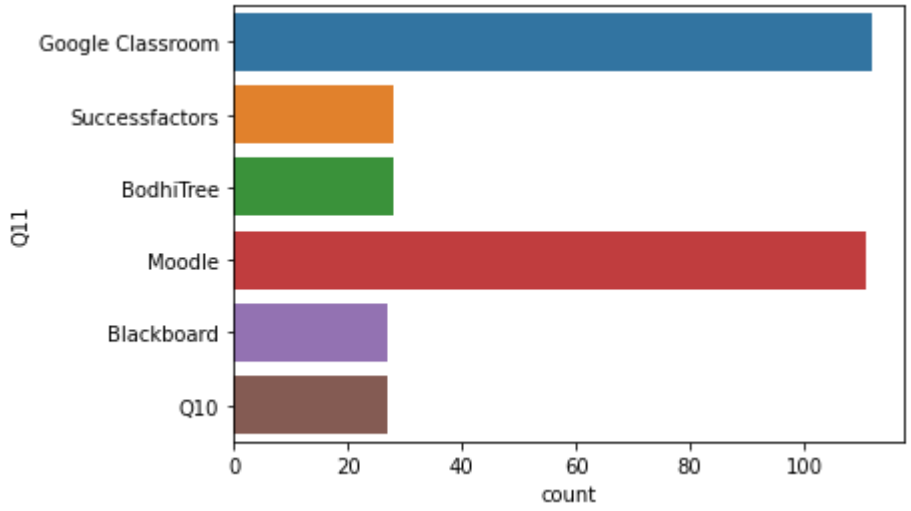
In [17]:
```
sns.countplot(y='Q10',data=data1) # lms that you purchased
```

Out[17]: <matplotlib.axes._subplots.AxesSubplot at 0x18c779cf940>



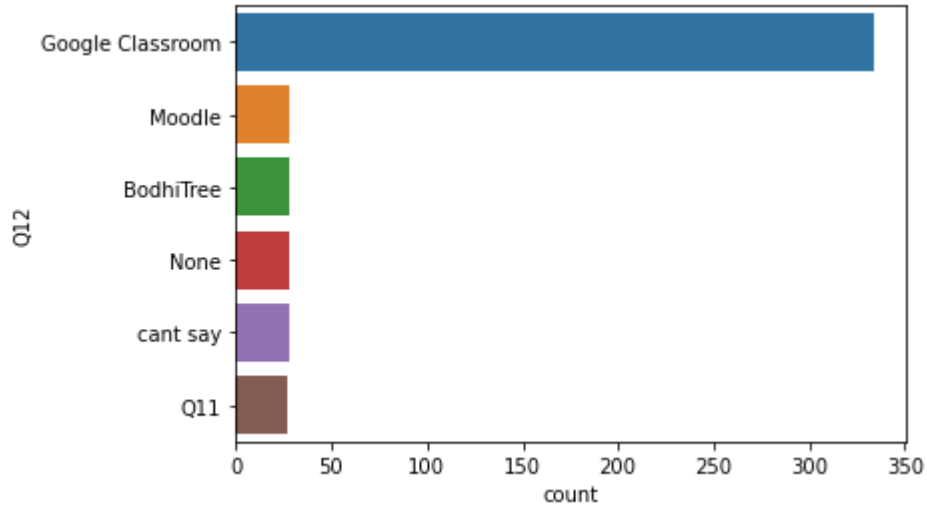
In [18]:
```
sns.countplot(y='Q11',data=data1) #lms you used for attending for training
```

Out[18]: <matplotlib.axes._subplots.AxesSubplot at 0x18c77441ca0>



In [19]:
```
sns.countplot(y='Q12',data=data1)#  which of the following lms  you suggest to yo
```

Out[19]: <matplotlib.axes._subplots.AxesSubplot at 0x18c779dbcd0>

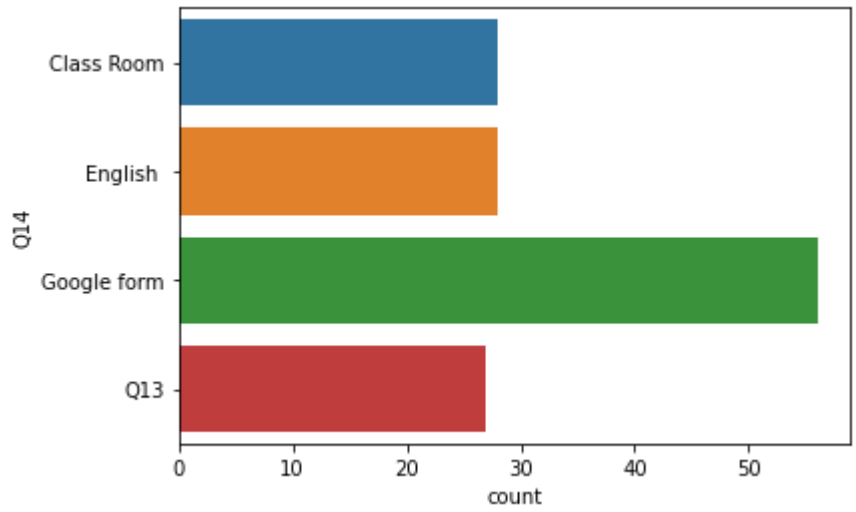


In [20]:
```
sns.countplot(y='Q13',data=data1)#please list out the reason for your response to
```

Out[20]: <matplotlib.axes._subplots.AxesSubplot at 0x18c77ab7100>

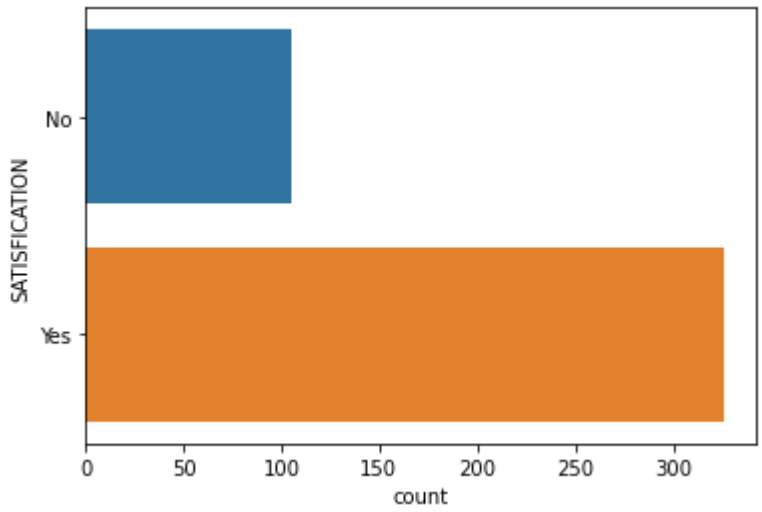
In [21]:
```
sns.countplot(y='Q14',data=data1)#mode of counduction of exam mention by any spec
```

Out[21]: <matplotlib.axes._subplots.AxesSubplot at 0x18c77b3a4c0>



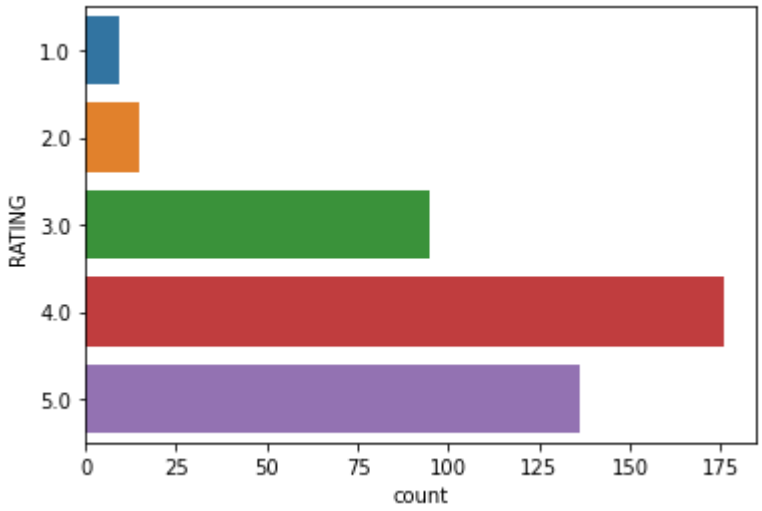
In [22]:
```
sns.countplot(y='SATISFICATION',data=data1)
```

Out[22]: <matplotlib.axes._subplots.AxesSubplot at 0x18c780817f0>



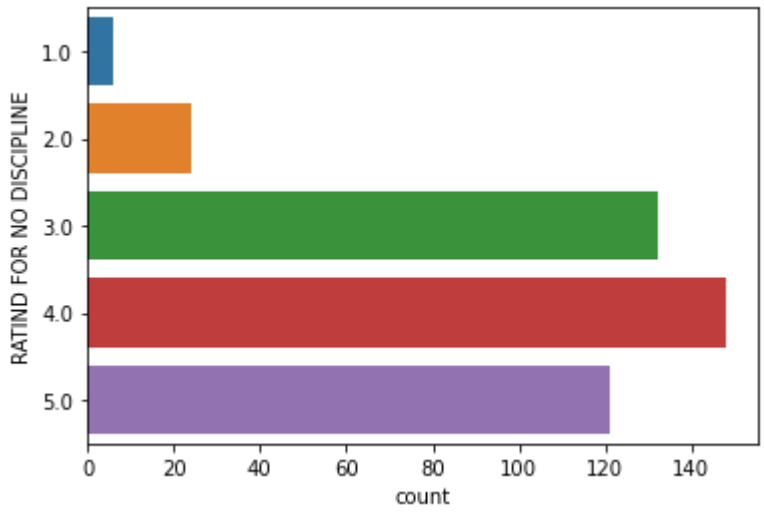
In [23]:
```
sns.countplot(y='RATING ',data=data1)
```

Out[23]: <matplotlib.axes._subplots.AxesSubplot at 0x18c769ce2e0>



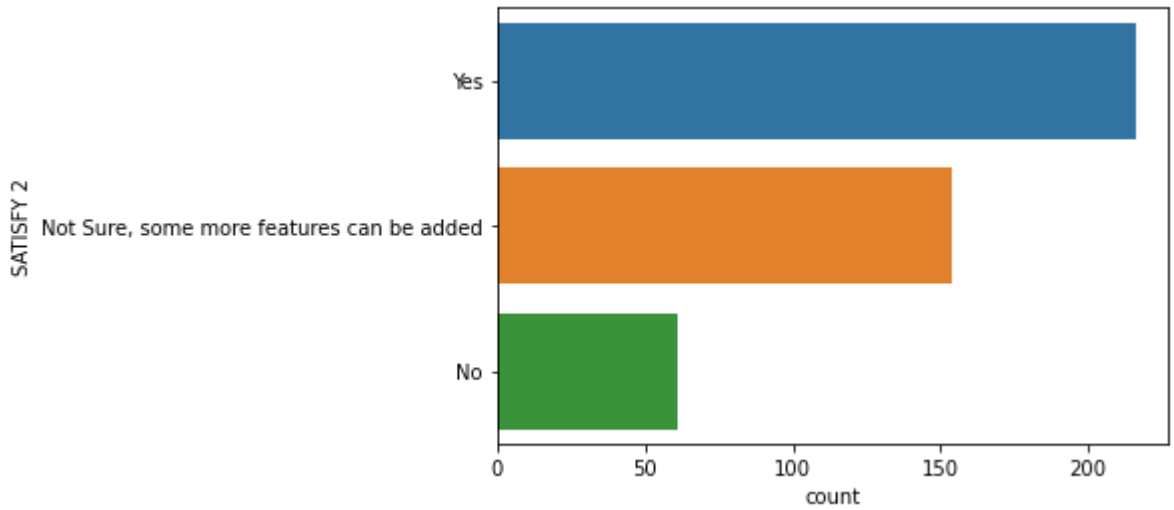
In [24]:
```
sns.countplot(y='RATIND FOR NO DISCIPLINE',data=data1)
```

Out[24]: <matplotlib.axes._subplots.AxesSubplot at 0x18c78125a60>



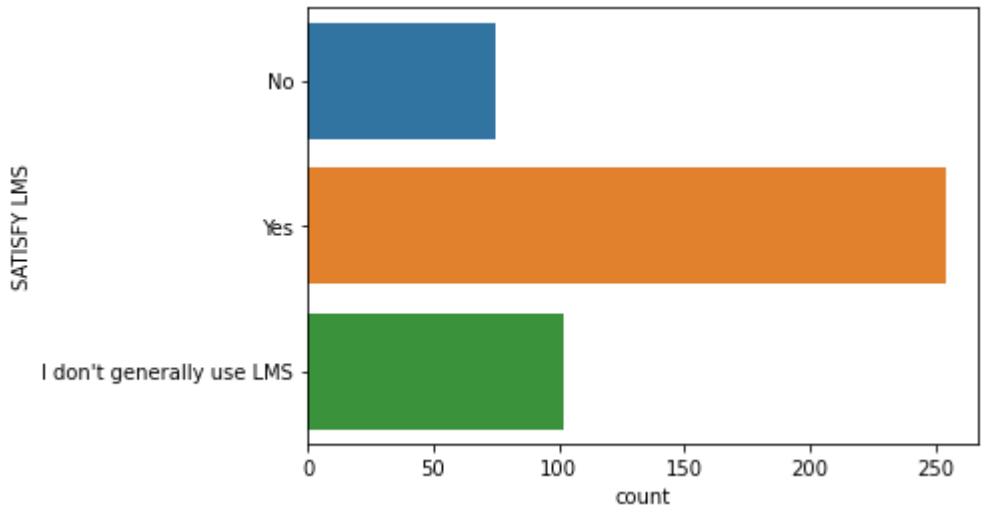
In [25]:
```
sns.countplot(y='SATISFY 2',data=data1)
```

Out[25]: <matplotlib.axes._subplots.AxesSubplot at 0x18c79151b50>



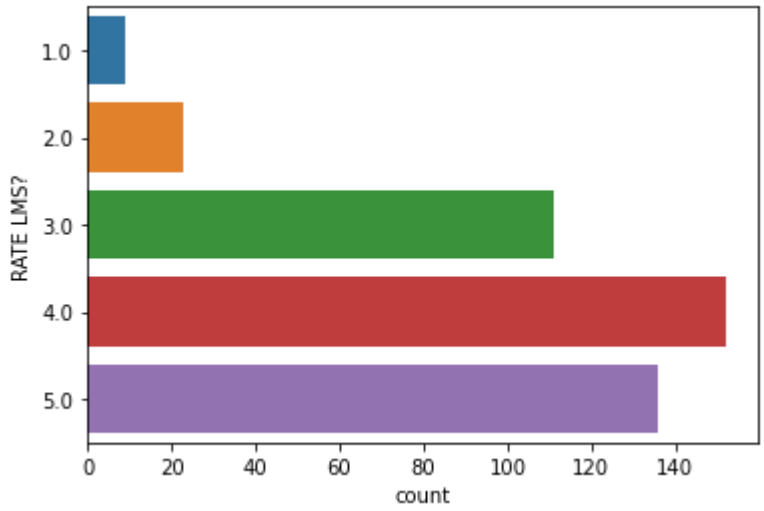
In [26]:
```
sns.countplot(y='SATISFY LMS',data=data1)
```

Out[26]: <matplotlib.axes._subplots.AxesSubplot at 0x18c7918c9d0>



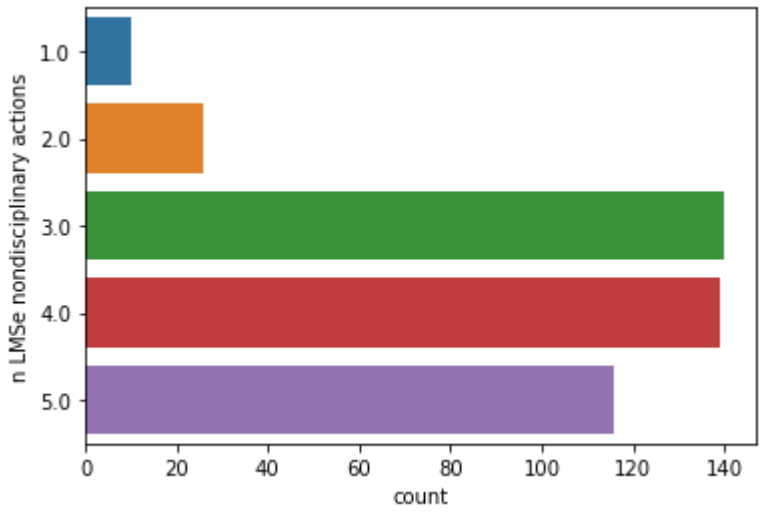
In [27]:
```
sns.countplot(y='RATE LMS?',data=data1)
```

Out[27]: <matplotlib.axes._subplots.AxesSubplot at 0x18c791e5760>



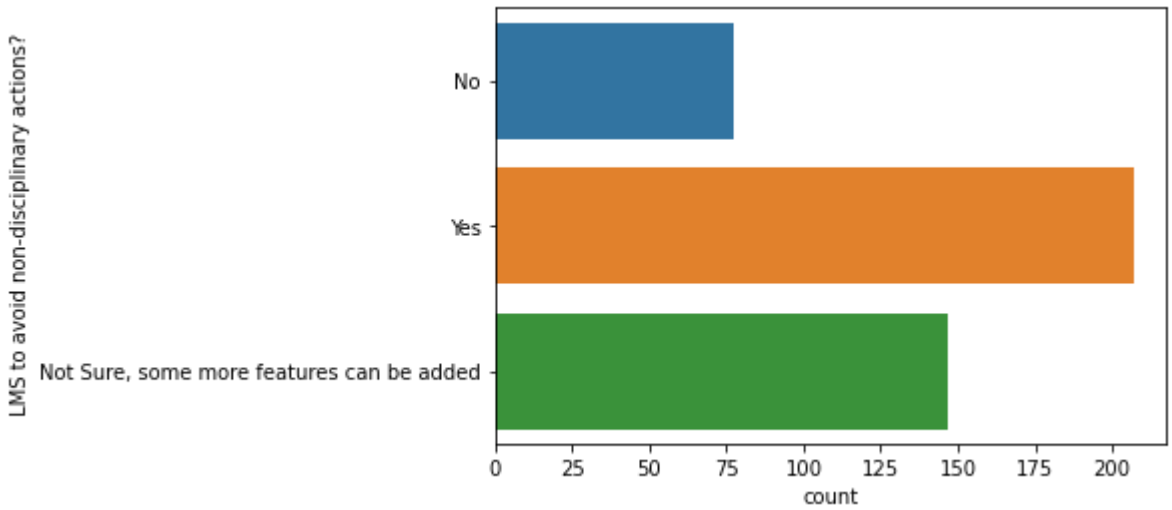
In [28]:
```
sns.countplot(y='n LMSe nondisciplinary actions',data=data1)
```

Out[28]: <matplotlib.axes._subplots.AxesSubplot at 0x18c79243eb0>



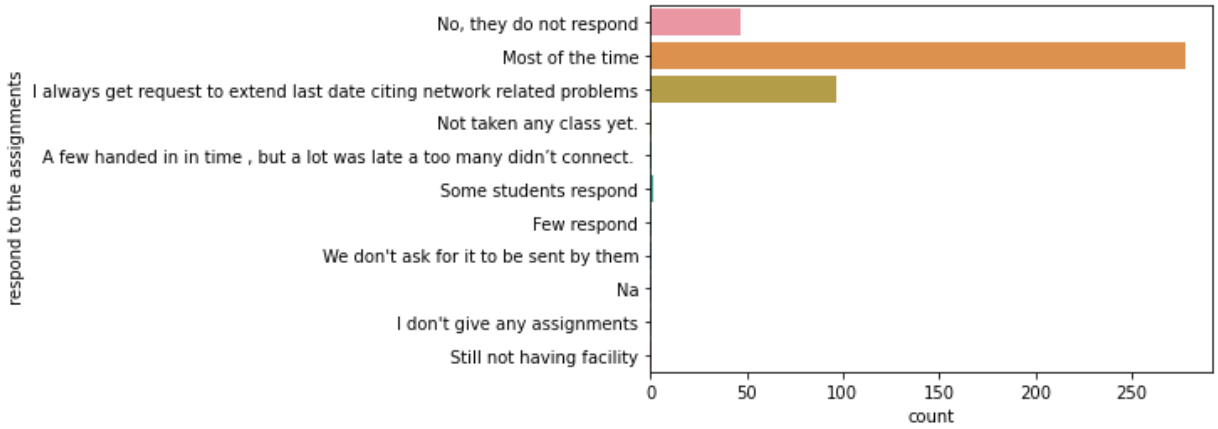
In [29]:
```
sns.countplot(y=' LMS to avoid non-disciplinary actions?',data=data1)
```

Out[29]: <matplotlib.axes._subplots.AxesSubplot at 0x18c7922ca90>



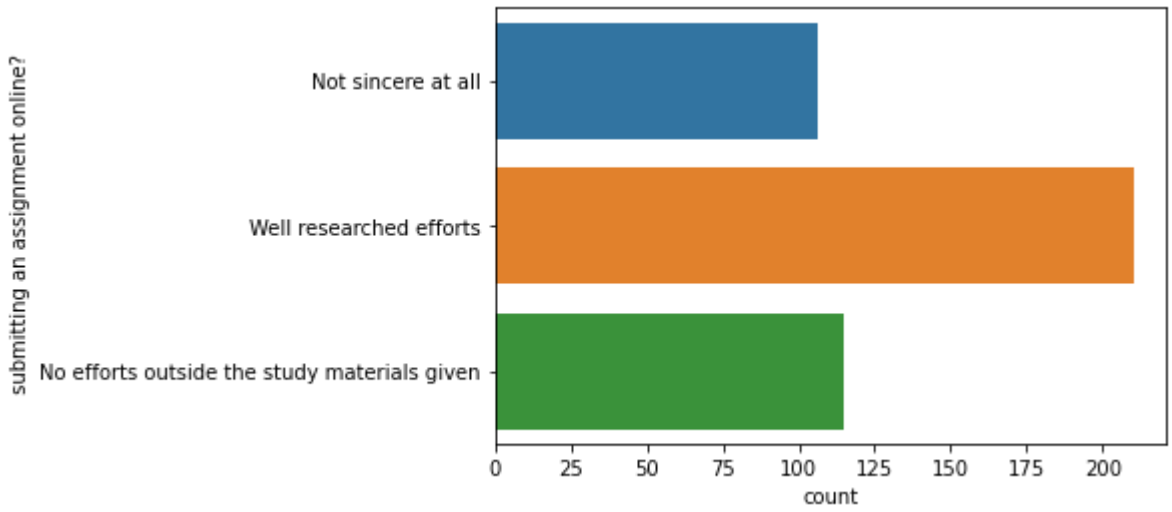
In [30]:
```
sns.countplot(y=' respond to the assignments',data=data1)
```

Out[30]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x18c792e60d0>
```



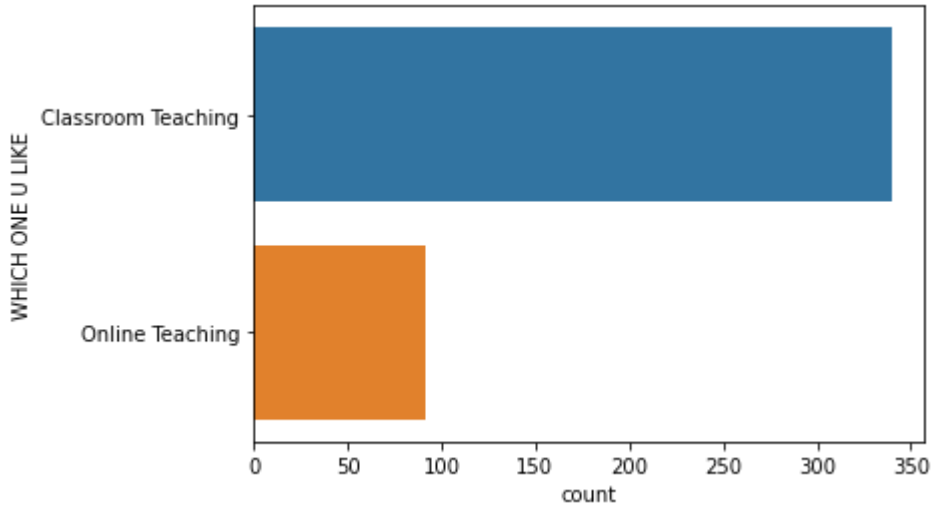
In [31]:
```
sns.countplot(y=' submitting an assignment online?',data=data1)
```

Out[31]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x18c792e60a0>
```



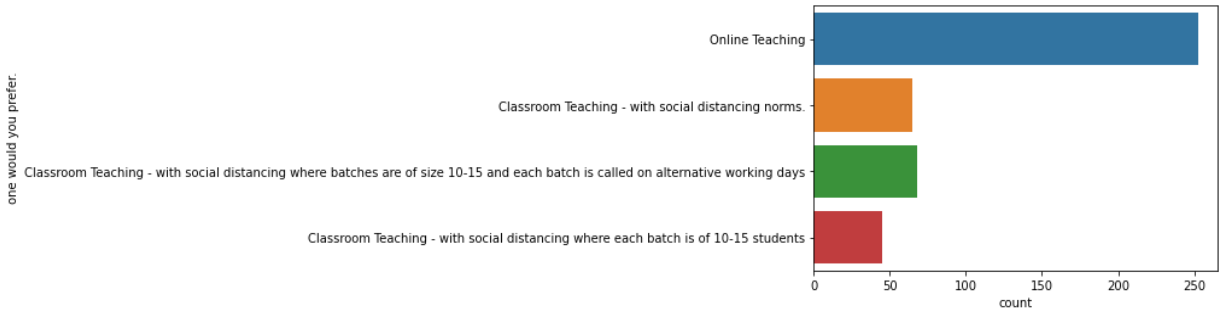
In [32]:
```
sns.countplot(y='WHICH ONE U LIKE',data=data1)
```

Out[32]: <matplotlib.axes._subplots.AxesSubplot at 0x18c793bb2e0>



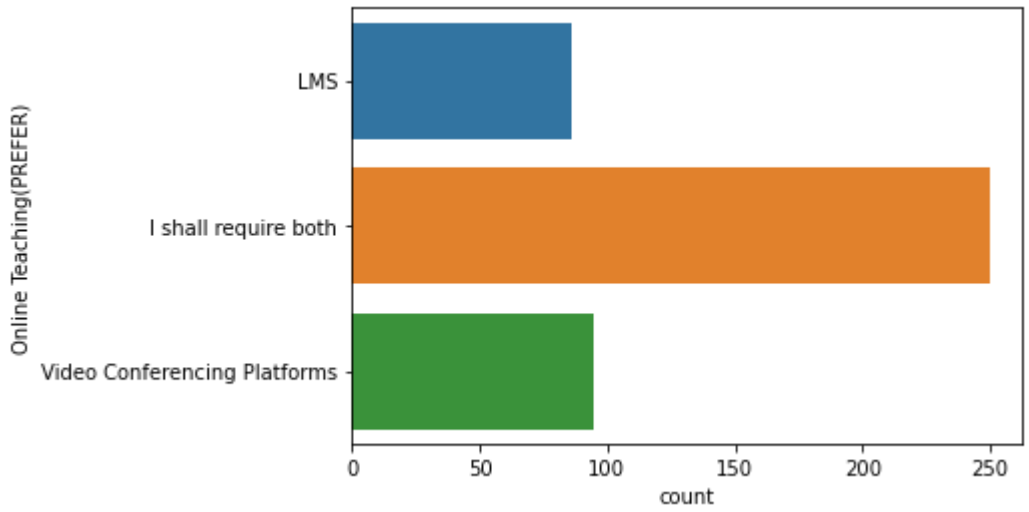
In [33]:
```
sns.countplot(y=' one would you prefer.',data=data1)
```

Out[33]: <matplotlib.axes._subplots.AxesSubplot at 0x18c7807d370>



In [34]:
```
sns.countplot(y='Online Teaching(PREFER)',data=data1)
```

Out[34]: <matplotlib.axes._subplots.AxesSubplot at 0x18c79193d00>



In [ ]:
```

```