Report for Dependency Parsing

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1 Introduction

For this practical, the English GUM corpus was used, consisting of 162,321 tokens.

2 Evaluation of Metrics

The UDPipe Parser has satisfactory results with a LAS score of 84.59.

Upon evaluation of each sentence, and corresponding Part of Speech Tag, some ambiguity was noticed.

For example, in the case of sentence 53-

"The p-value associated with the design-based F is thus more accurate (than the associated with the 2 statistic) given the adjustments and calculations take into account the weighted nature of the data.."

In this, the "weighted" might be considered as an Adjective describing the 'nature of the data' but it is tagged as a VERB.

```
weighted      weight      VERB  VBN   Tense=Past|VerbForm=Part      35      amod
```

Fig- Weighted Tagged as VERB.

```
Metrics    | Precision |   Recall |  F1 Score | AligndAcc
-----------+-----------+----------+-----------+-----------
Tokens     |    100.00 |   100.00 |    100.00 |
Sentences  |    100.00 |   100.00 |    100.00 |
Words      |    100.00 |   100.00 |    100.00 |
[UPOS      |    100.00 |   100.00 |    100.00 |    100.00
XPOS       |    100.00 |   100.00 |    100.00 |    100.00
Feats      |    100.00 |   100.00 |    100.00 |    100.00
AllTags    |    100.00 |   100.00 |    100.00 |    100.00
Lemmas     |    100.00 |   100.00 |    100.00 |    100.00
UAS        |     86.65 |    86.65 |     86.65 |     86.65
LAS        |     84.59 |    84.59 |    _84.59 |     84.59
```

Fig- Evaluation Metrics for UDPipe Parser