

# Finding, Understanding and Learning: Making Information Discovery Tasks Useful for Children and Teachers

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# Motivation

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Difficult interaction

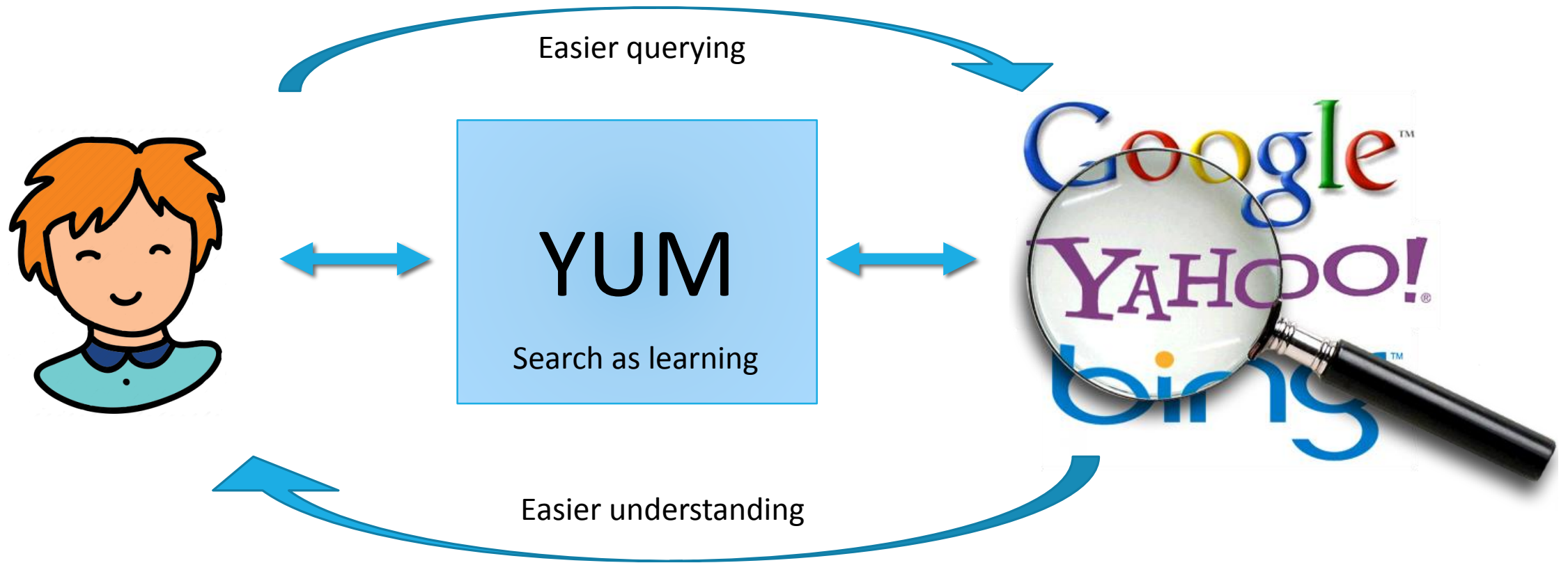


Hinder search as learning

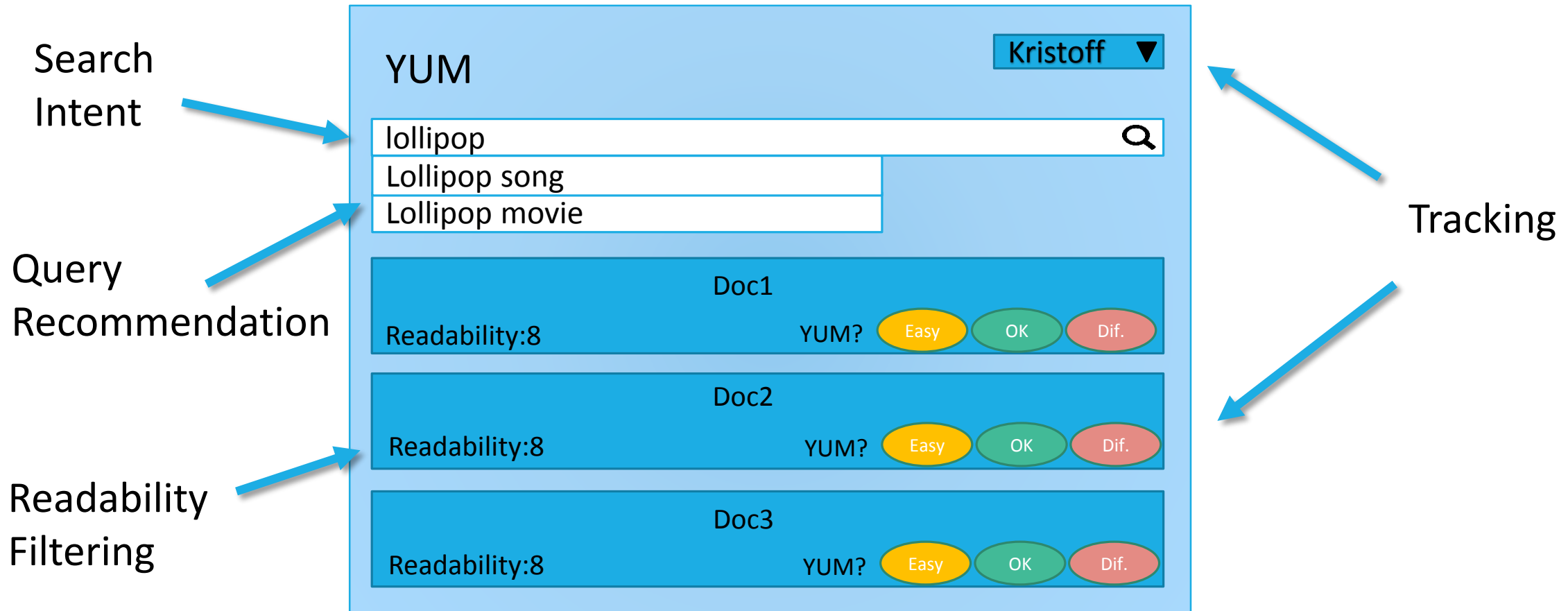


# What is YouUnderstood.me (YUM)?

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# What Does YUM Offer Children?



# Search Intent

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Initial Query

Sven **the** amaaazing raindeer **of** Frozen

Stop-word removal

Sven ama**aa**azing r**a**indeer Frozen

Spelling for children

Sven **amazing** reindeer Frozen

Children's relevant term detection

Sven reindeer Frozen

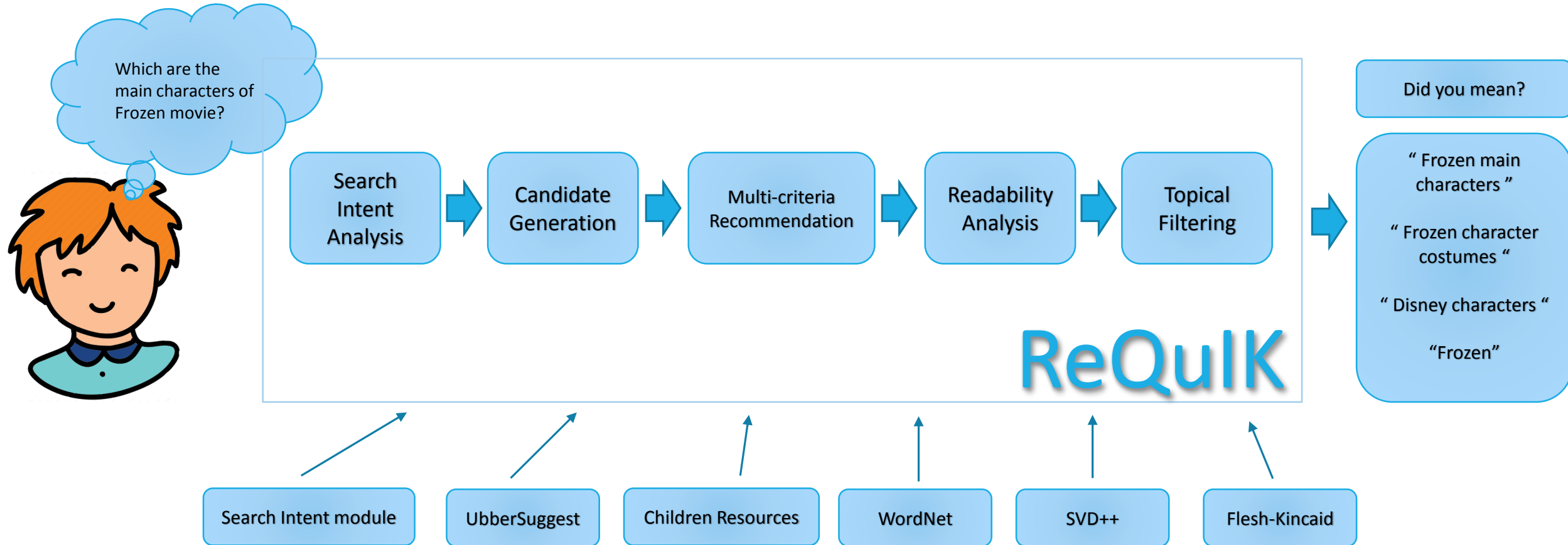
Final Query

Sven reindeer Frozen

QuIK

“Is Sven Seven?” A Search Intent Module for Children, Nevena Dragovic, Ion Madrazo Azpiazu, Maria Soledad Pera, SIGIR 2016

# Query Recommendation



# Tracking

Readability:10	Doc1	YUM?	Easy	OK	Dif.
Readability:5	Doc2	YUM?	Easy	OK	Dif.
Readability:7	Doc3	YUM?	Easy	OK	Dif.
Readability:8	Doc4	YUM?	Easy	OK	Dif.
Readability:9	Doc5	YUM?	Easy	OK	Dif.



- Readability < 10
- Readability > 5
- Readability > 7
- No constraint
- Readability < 9

# Filtering by Readability

Readability:8	Doc1	YUM?	Easy	OK	Dif.
Readability:10	Doc2	YUM?	Easy	OK	Dif.
Readability:8	Doc3	YUM?	Easy	OK	Dif.
Readability:5	Doc4	YUM?	Easy	OK	Dif.
Readability:7	Doc5	YUM?	Easy	OK	Dif.



Filtering

Readability:8	Doc1	YUM?	Easy	OK	Dif.
Readability:8	Doc3	YUM?	Easy	OK	Dif.



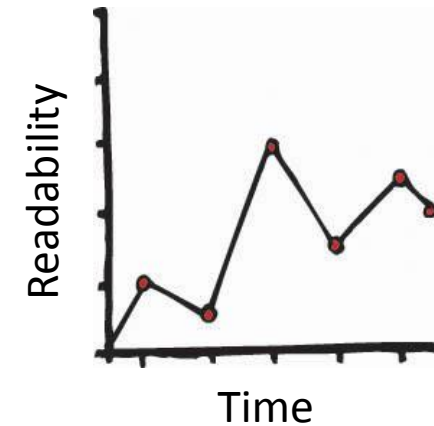
# What Does YUM Offer Teachers?

8<sup>th</sup> Grade class

Mr. Smith



	Kristoff	Readability: 8
	Anna	Readability: 9
	Sole	Readability: 7
	Nev	Readability: 8
	Nick	Readability: 7



# Initial Study: Description

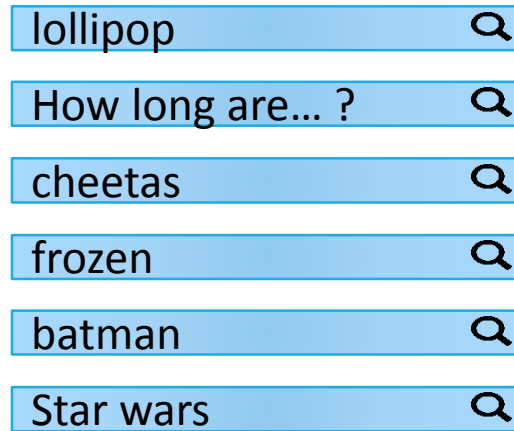
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K-9 Idaho Teachers



50 Children



300 open queries



5 Search Engines

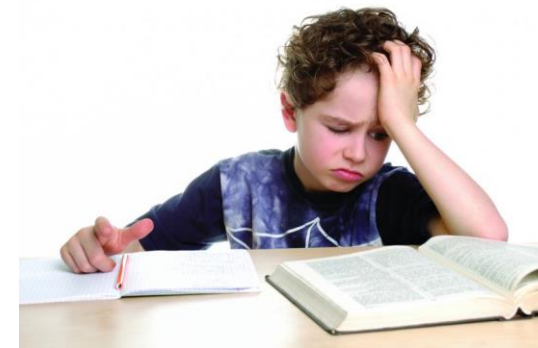
# Initial Study: Results



5% less



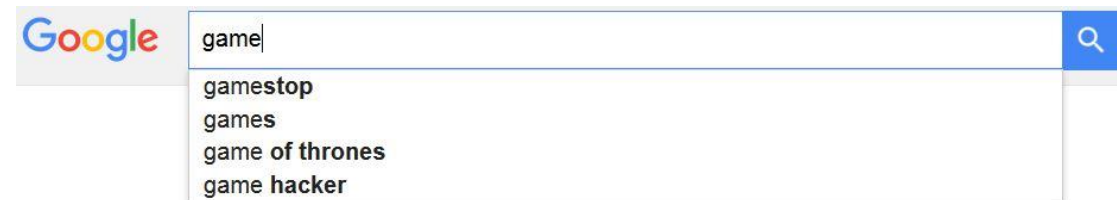
Non-appropriate ads



Avg. Readability: >11



Poor adaptability



Poor aid for creating queries

# Conclusion and Future Work

- ❖ Future work
  - ❖ Implicit feedback
  - ❖ Ad-hoc readability formula
  - ❖ Further interaction between teacher and student

YUM

Kristoff ▼

Lollipop song

Lollipop movie

Doc1

Readability:8

YUM?

Easy

OK

Dif.

Doc2

Readability:8

YUM?

Easy

OK

Dif.

Doc3

Readability:8

YUM?

Easy

OK

Dif.

# Thank You!

Special thanks to SIGIR Student travel grant.

