

## NOTETAKER CHECKLIST FORM

(Complete one for each talk.)

Name: Neelesh Tiruvilumala Email/Phone: tiruvilu@usc.edu

Speaker's Name: Anna Sfard and James Hiebert

Talk Title: Reflections on Ideas Discussed at the Workshop

Date: 2 / 12 / 16 Time: 4 : 30 am  pm (circle one)

List 6-12 key words for the talk: Classroom observation, improving learning opportunities, mathematical discourse, observing mathematics

Please summarize the lecture in 5 or fewer sentences: James Hiebert discusses the importance of moving towards measurement based observation practices. Anna Sfard analyzes the evolution of the vocabulary used to talk about classroom observation. She makes connections between this evolution and the progress that has already been made. She also talks about areas in which further progress can be made and how the vocabulary can give us clues about future directions.

## CHECK LIST

(This is **NOT** optional, we will **not pay** for **incomplete** forms)

- Introduce yourself to the speaker prior to the talk. Tell them that you will be the note taker, and that you will need to make copies of their notes and materials, if any.
- Obtain ALL presentation materials from speaker. This can be done before the talk is to begin or after the talk; please make arrangements with the speaker as to when you can do this. You may scan and send materials as a .pdf to yourself using the scanner on the 3<sup>rd</sup> floor.
  - **Computer Presentations:** Obtain a copy of their presentation
  - **Overhead:** Obtain a copy or use the originals and scan them
  - **Blackboard:** Take blackboard notes in black or blue **PEN**. We will **NOT** accept notes in pencil or in colored ink other than black or blue.
  - **Handouts:** Obtain copies of and scan all handouts
- For each talk, all materials must be saved in a single .pdf and named according to the naming convention on the "Materials Received" check list. To do this, compile all materials for a specific talk into one stack with this completed sheet on top and insert face up into the tray on the top of the scanner. Proceed to scan and email the file to yourself. Do this for the materials from each talk.
- When you have emailed all files to yourself, please save and re-name each file according to the naming convention listed below the talk title on the "Materials Received" check list.  
(YYYY.MM.DD.TIME.SpeakerLastName)
- Email the re-named files to [notes@msri.org](mailto:notes@msri.org) with the workshop name and your name in the subject line.

**When words get in your eyes:  
On challenges of investigating  
mathematics-in-teaching  
and on the importance of paying**

**attention to words**  
Anna Stará, The University of Haifa

CIME - MSRI Workshop Series, Berkeley, CA

**10 February 2016**

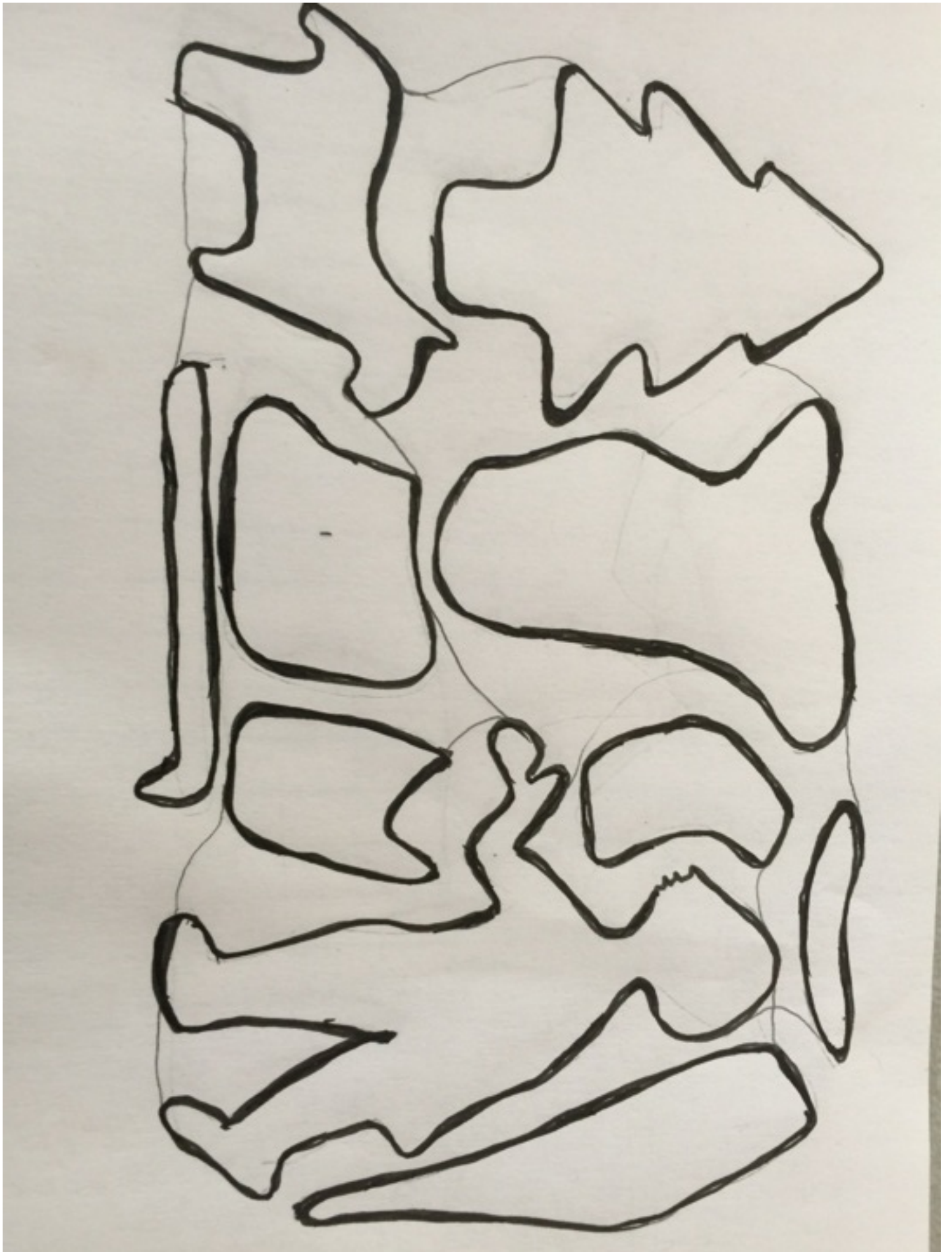
**How we prevent words from  
getting in our eyes:**

**On advances in observing  
teaching and on the importance**

**of paying attention to words**

**CIME - MSRI Workshop Series, Berkeley, CA**

**12 February 2016**



# conclusion

February 13, 2016

# conclusion

**Our words split the  
word into a  
foreground and a  
background**

# conclusion

Our words split the  
word into a  
foreground and a  
background  
that is

# conclusion

Our words split the  
word into a  
foreground and a  
background

into what we  
see and what  
we let go  
unnoticed

that is



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# We need

February 13, 2016

# **We need**

**to change our way of  
talking about what we  
observe**

February 13, 2016

# **We need**

**to change our way of  
talking about what we  
observe**

**so that our words become**

# We need

to change our way of  
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so that our words become

- **fully operational** (refer to things we can see, not to undefined abstract entities)

# We need

to change our way of  
talking about what we  
observe

so that our words become

- **fully operational** (refer to things we can see, not to undefined abstract entities)
- **highly sensitive** – allow to arrive at high-resolution picture of what is happening in the classroom

# In this commentary

February 13, 2016



# **In this commentary**

**I was asked to act as  
observer.**

# In this commentary

I was asked to act as  
observer.

attend to words used by the  
conference participants to  
see whether the required  
change is happening

# In this commentary

I was asked to act as

~~I~~ ~~will~~ server.

~~will~~ thus try to do what I preach:

attend to words used by the  
conference participants to  
see whether the required  
change is happening

**More specifically, I'll ask**

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- 1. What were the words of note?**

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- 1. What **were** the **words** of note?**
- 2. What were the **words** that could be, but **weren't****

## More specifically, I'll ask

1. What **were** the **words** of note?
2. What were the **words** that could be, but **weren't**
3. What are the **words** we **don't want** but may be sneaking in through the back door?

**More specifically, I'll ask**

- 1. What **were** the **words** of **note**?**
- 2. What were the **words** that **could be**, but **weren't****
- 3. What are the **words** we **don't** **want** but may be sneaking in through the back door?**



# keywords

February 16

# keywords

**What we  
were  
looking at**

# keywords

- teaching

**What we  
were  
looking at**

# keywords

- teaching
- learning

**What we  
were  
looking at**

# keywords

**What we  
were  
looking at**

- teaching
- learning
- clubbing!

# keywords

**What we  
were  
looking at**

- teaching
- learning
- clubbing!
- observing

# keywords

**What we  
were  
looking at**

- teaching
- learning
- clubbing!
- observing
- video

## keywords

- What we were looking at**
- teaching
  - learning
  - clubbing!
  - observing
  - video
  - transcripts



## keywords

- teaching
- learning
- clubbing!
- observing
- video
- transcripts

**What we  
were  
looking at**

**How we  
were  
looking**

## keywords

- **What we were looking at**
- teaching
- learning
- clubbing!
- observing
- video
- transcripts

**How we were looking**

- focus

## keywords

- **What we were looking at**
- teaching
- learning
- clubbing!
- observing
- video
- transcripts

- **How we were looking**
- focus
- frame

## keywords

- **What we were looking at**
- teaching
- learning
- clubbing!
- observing
- video
- transcripts

- **How we were looking**
- focus
- frame
- lens

## keywords

**What we  
were  
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- teaching
- learning
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- observing
- video
- transcript  
s

**How we  
were  
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- focus
- frame
- lens

- questions

## keywords

**What we  
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- teaching
- learning
- clubbing!

- observing
- video
- transcripts

**How we  
were  
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- focus
- frame
- lens

- questions
- rubric

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- teaching
- learning
- clubbing!
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- video
- transcripts

**How we were looking**

- focus
- frame
- lens
- questions
- rubric

**What we were looking for**

- mathematics



## keywords

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- frame
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**What we  
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- mathematics
- cognitive demand

## keywords

**What we  
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- frame
- lens
- questions
- rubric

**What we  
were**

- mathematics

**looking for**

- cognitive demand
- engaging

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- teaching
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### What we were

- mathematics
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- mathematics
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- engaging
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- supporting

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### How we were looking

- focus
- frame
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### What we were looking for

- mathematics
- cognitive demand
- engaging
- collaborating
- participating
- supporting
- identifying,

## keywords

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- teaching
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### How we were looking

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### What we were looking for

- mathematics
- cognitive demand
- engaging
- collaborating
- participating
- supporting
- identifying, equity

## keywords

**What we  
were  
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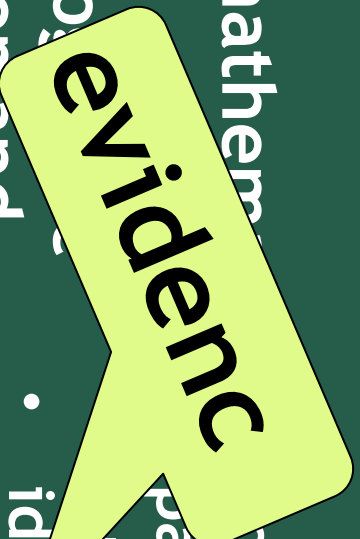
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- focus
- frame
- lens
- questions
- rubric

**What we  
were  
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- mathematics
- collaborating
- participating
- supporting
- identifying,
- equity
- demand
- engaging





## keywords

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- questions
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- cognitive demand
- engaging
- collaborating
- participating
- supporting
- identifying,
- equity

# keywords

We now speak about  
what we see in verbs  
rather than nouns

What we

were

looki

How

look

What we

were

looking for

- teaching

- cognitive demand
- engaging

- collaborating
- participating
- supporting
- identifying,
- equity

**More specifically, I'll ask**

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# **Words that weren't: words that signal**

February 13, 2016

11

**Words that weren't:**  
words that signal  
**permanence (vs. constant change)**

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words that signal  
**permanence (vs. constant change)**

**Words that weren't:**  
words that signal  
permanence (vs. constant change)  
form-content dichotomy



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**Words that weren't:**  
words that signal

permanence (vs. constant change)  
form-content dichotomy

**Words that signal evaluation**

# Words that weren't: words that signal

permanence (vs. constant change)  
form-content dichotomy

Words that signal evaluation

- good, better

# Words that weren't: words that signal

permanence (vs. constant change)  
form-content dichotomy

## Words that signal evaluation

- good, better
- poor, worse

# Words that weren't: words that signal

permanence (vs. constant change)  
form-content dichotomy

## Words that signal evaluation

- good, better
- poor, worse
- **assessment** (replaced by formative assessment)

# Words that weren't: words that signal

permanence (vs. constant change)  
form-content dichotomy

## Words that signal evaluation

- good, better
- poor, worse
- assessment (replaced by formative assessment)
- numbers

# Words that weren't: words that signal

permanence (vs. constant change)  
form-content dichotomy

## Words that signal evaluation

- good, better
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- assessment (replaced by formative assessment)
- numbers

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permanence (vs. constant change)  
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**But is this true?**

February 16

13

**But is this true?**

**Were we really  
purely  
descriptive and  
non-judgmental?**

## **But is this true?**

**Were we really** For one thing, we could  
**purely** not be. This would be  
**descriptive and** contrary to who we are  
**non-judgmental?** and what our mission is.

## **But is this true?**

**Were we really** For one thing, we could  
**purely** not be. This would be  
**descriptive and** contrary to who we are  
**non-judgmental?** and what our mission is.

**So let's judge  
and not be  
ashamed**

## But is this true?

Were we really purely descriptive and non-judgmental? For one thing, we could not be. This would be contrary to who we are and what our mission is.

So let's judge and not be ashamed  
But let us not relegate the judgement to numbers; and when we do, let us not delude ourselves that it's objective (only because one doesn't argue with numbers).

**I'm not going to pretend that  
I'm not evaluating**



**I'm not going to pretend that  
I'm not evaluating**

**From my  
observations:**

**I'm not going to pretend that  
I'm not evaluating**

**From my observations: You all have applied what  
you learned from your observations of teaching to  
your own**

**I'm not going to pretend that  
I'm not evaluating**

**From my observations: You all have applied what  
you learned from your observations of teaching to  
your own**

**and the result was GREAT**

**I'm not going to pretend that  
I'm not evaluating**

**From my observations: you all have applied what  
you learned from your observations of teaching to  
your own**

**and the result was GREAT**

**Thank you for teaching  
me and doing this so  
well!**