

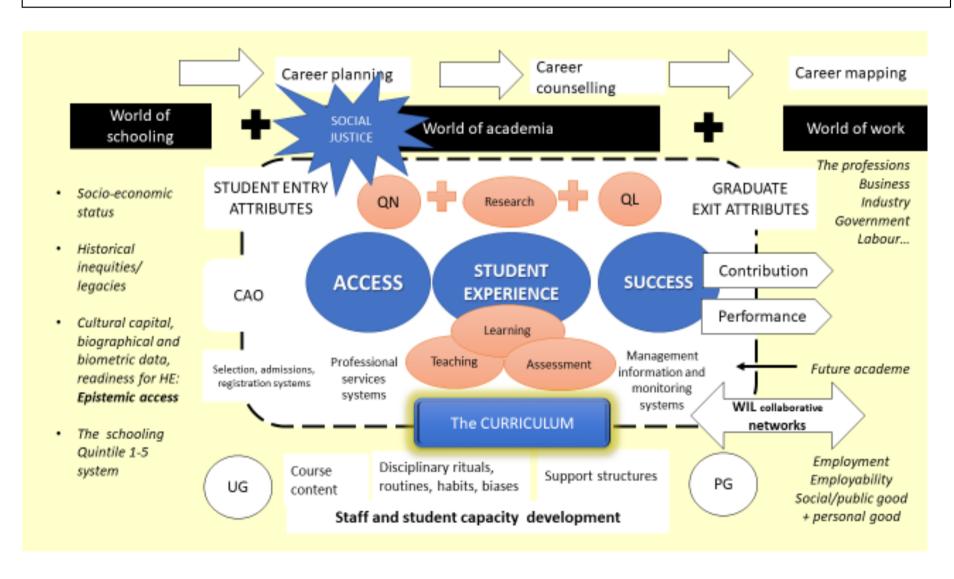




Siyaphumelela Convening

October 2022

Access and Success Advisory Forum (ASAF) Conceptual Framework



Some Highlights

- First Year Experience Programme Development: Curriculum and Materials Design Completed and is being piloted
- SASSE/LSSE Engagement in progress: Encouraging findings
- Academic Advising: UFS Partnership established
- Collaboration on Student Epistemic Access and Success with University of Johannesburg
- Appointment of 5 Instructional Designers: Focus on curriculum re-design for student success
- **Data Analytics Support Group**: Friday meetings research groups engage with "critical friends"
- 2022 UKZN E-Learning Symposium: Forum for disseminating Siyaphumelela/ASAF projects upscaled to a conference in 2023

Access and Success Advisory Forum (ASAF) SoTL Projects

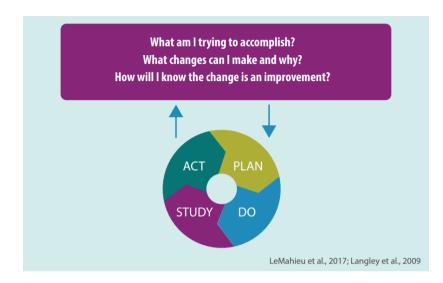
	Project Title	Team Leader
1.	Graduate Attributes	Prof Nirmala Gopal
2.	Curriculum redesign for academic success	Prof Labby Ramrathan
3.	Activating and engaging the student voice	Ms Sethu Nguna
4.	At-risk identification & At-Risk Advising	Prof Randhir Rawatlal
5.	Students' Attitudes Towards E-learning	Prof Msizi Mkhize
6.	Student and staff expectations and experiences of student success	Prof Sadhana Manik
7.	Cum Laude Tracking	Dr Samukelisiwe Khumalo
8.	Entrenching the "blended" into blended learning	Mr Ashwin Manival
9.	Blended Integrated Student Support and Engagement	Prof Sinegugu Duma
10.	Innovations in transitioning to remote/online assessments	Dr Upasana Singh

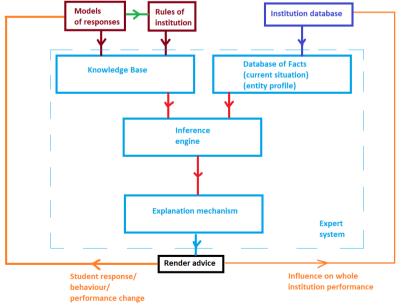
Student Success Workshops

Are We Using Institutional Research Optimally?	30/07/2021	<u>link</u>
Key Big Data Opportunities for End- Users in Higher Education	27/08/2021	<u>link</u>
The Power of Data for Decision Making and The Appropriate Use of Analytics in Higher Education Settings	30/09/2021	
Transitioning Students to Higher Education: The Role of The UKZN First Year Experience (FYE) Programme	26/10/2021	
Designing the Higher Education System for Student Success	22/03/2022	<u>link</u>
Understanding students: A key to systemic success	07/04/2022	<u>link</u>
Strength in numbers: working together to harness useful data for student success	05/05/2022	<u>link</u>
Why Data Matters for Student Success	21/07/2022	<u>link</u>

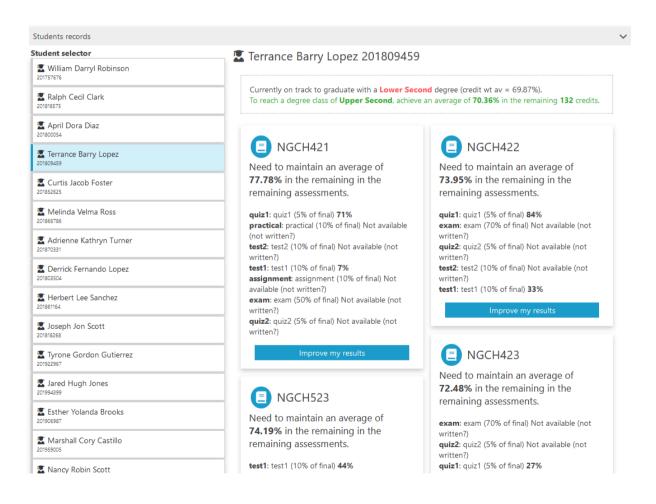
Advising at Scale

- Prompts from Siyaphumelela, Kresge,
 GSU Student Advising
- Focus on student advising in respect of student success (Cum Laude group) and Automation, student assessment (automation)
- Realisation of advising at scale through automation to ease cost effectiveness
- Human-Al interface optimality
- Some drawbacks but overall more positives



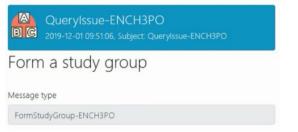


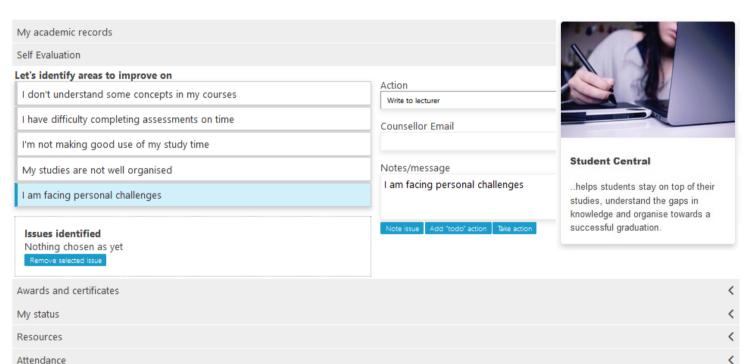
Student Advising (AutoScholar Student Central)



- Shift student interest from mere final pass to class of pass
- Original cum laude advising
- Everyone was on track for summa cum laude at some stage
- When exit, class pass improvement still possible
- Track down to individual course assessments
- Specific and clear action
- "Improve my results"

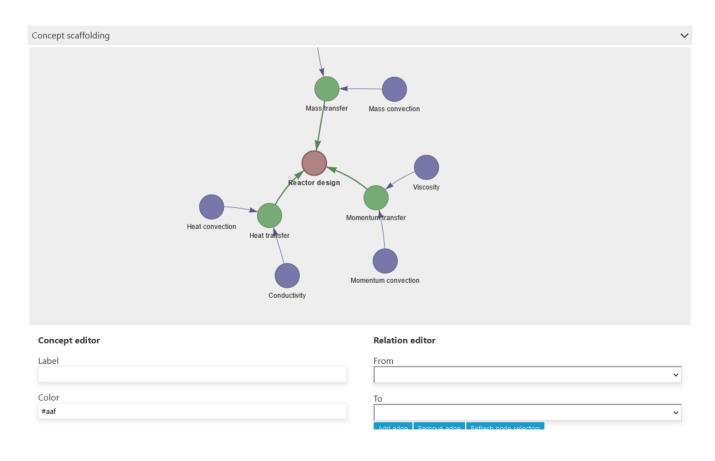
Student self-evaluation





- Student evaluates performance to find reasons
- ❖ Academic
 - Identify knowledge gaps
 - Direct to specific T&L content
 - Connect with lecturer
 - Connect with classmates
- ❖ Non-academic
 - Direct to correct support
 - Bridge gap to counselling

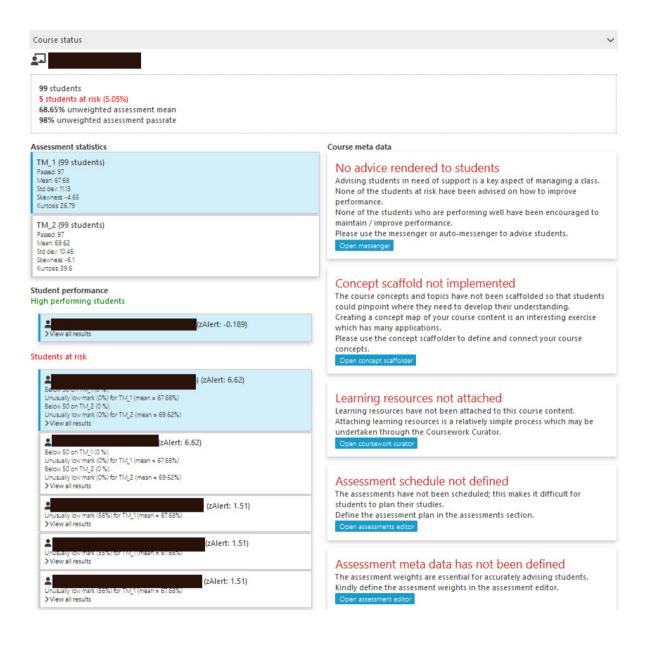
Identifying knowledge gaps



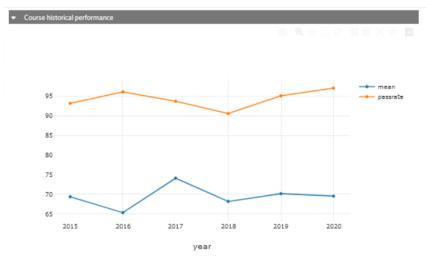
- During self-evaluation, system guides students to concept(s) with lower understanding
- Directs to T&L content
- If high numbers, alert lecturer for revision
- Lecturer can use editor
- Need be done once only – same map will apply; can be centralised

Lecturer Advising

- Academic advice
- Also direct to non-academic
- Promote good class organisation
- Promote use of modern teaching methods
- Increase awareness of student risk



Lecturer Advising [skip]



2015: 205 registered, 192 wrote, 191 passed. Mean: 69.35 %, Passrate: 93.17 %

Mean: 69.35 %, Std dev. 8.31, Skewness -0.503, Kutosis -0.235, Passrate based on students who wrote: 99.48 %

2016: 154 registered, 148 wrote, 148 passed. Mean: 65.29 %, Passrate: 96.1 %

Mean: 65.29 %, Std dev. 7.69, Skewness -0.145, Kutosis -0.897, Passrate based on students who wrote: 100 %

2017: 143 registered, 134 wrote, 134 passed. Mean: 74.09 %, Passrate: 93.71 %

Mean: 74.09 %, Std dev. 8.16, Skewness -0.0593, Kutosis -0.587, Passrate based on students who wrote: 100 %

2018: 191 registered, 177 wrote, 173 passed. Mean: 68.15 %, Passrate: 90.58 %

Mean: 68.15 %, Std dev. 11.3, Skewness -0.648, Kutosis 2.97, Passrate based on students who wrote: 97.74 %

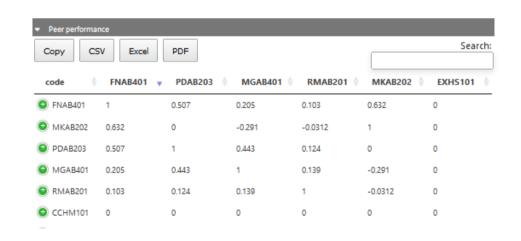
2019: 204 registered, 196 wrote, 194 passed. Mean: 70.13 %, Passrate: 95.1 %

Mean: 70.13 %, Std dev. 8.75, Skewness -0.565, Kutosis 0.772, Passrate based on students who wrote: 98.98 %

2020: 102 registered, 100 wrote, 99 passed. Mean: 69.52 %, Passrate: 97.06 %

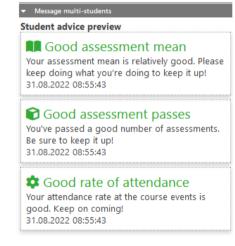
Mean: 69.52 %, Std dev. 7.64, Skewness -7.71, Kutosis 70.66, Passrate based on students who wrote: 99 %

- Awareness of performance
- Peer course performance
- Stay on top of course operation during the semester
- Edit concept scaffold
- Monitor whether assessment evaluation uploaded



Generalise messaging concept

- Alert and messages are an entry point
- Also generate awards
- Also trigger institution classifications, progression strategies, registration
- Trigger support interventions



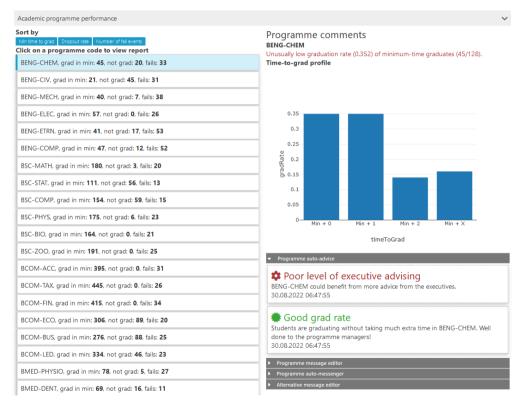


Registration advisor [Skip]

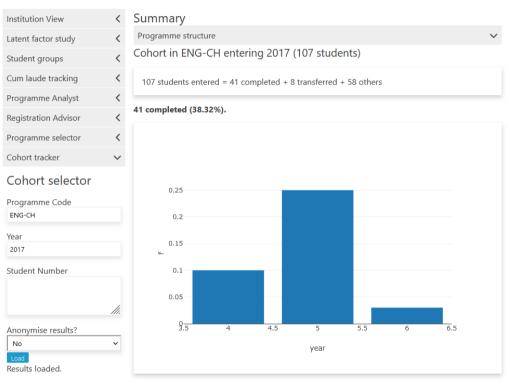


Whole-institution metrics [Skip]





Academic programme [skip]



Students who **completed** this degree go on to do the following programmes: MSEN (2) Students who **did not** complete this degree go on to do the following programmes: BSCSIT (2), BSM (1), BSS (1), BAH (1), BARCHS (1), BCOA (1), PGD-AC (1)

Fewer tries needed to pass

Relative few tries needed to pass NGCH111 30.08.2022 06:50:52

Poor rate of attendance

Poor rate of attendance in NGCH111 30.08.2022 06:50:52

Issues identified in programme courses

MATH131, semester 1, 100 students, passrate Low min result mean (47.79)

Several attempts required to pass this course (1.86)

ENCH1EB, semester 2, 100 students, passrate Low min result mean (**50.91**)

Several attempts required to pass this course (2.03)

High number of complaints

Several complaints received 30.08.2022 06:50:52

MATH141, semester 2, 100 students, passrate: 0.56

Low min result mean (56.27)

Several attempts required to pass this course (1.72)

MATH142, semester 2, 100 students, passrate: 0.12

Low passrate (0.12)

Possible gatekeeper course (core course, with low passrate).

Low min result mean (37.71)

Several attempts required to pass this course (2.63)

ENCH2TD, semester 4, 76 students, passrate: 0.22

ow passrate (0.22)

Possible gatekeeper course (core course, with low passrate).

Low min result mean (43.57)

Several attempts required to pass this course (2.24)

ENCH3CP, semester 6, 68 students, passrate: 0.56

Low min result mean (50.95)

Possible impacted course (students start course only in semester 7.53 instead of 6)

Several attempts required to pass this course (1.46)

ENCH3ED, semester 6, 67 students, passrate: 0.51

Low min result mean (50.27)

Possible impacted course (students start course only in semester 7.16 instead of 6)

Several attempts required to pass this course (1.58)

ENCH3MT, semester 6, 67 students, passrate: 0.63

I ow min result mean (53.75)

Student success indicators

- What's the difference between cum-laude and notcum-laude?
- Extensive questionnaire which is still easy to answer
- Probes
 - Level of interest in chosen study area,
 - Study habits
 - Home environment
 - Institutional support
 - Social & peer factors
 - Funding & finance

Thank you for taking the time to help us understand the needs of our students by completing this questionnaire. 1. Please click/tap on your level of agreement with each statement. 2. At the end of the statements, please enter any comments you'd like to make. 3. Click/tap on the next section header to open it. 4. Please save your submission in the "Save and complete my submission" section. 1. Interest in chosen field I made the right choice of programme and specialisation/phase I am satisfied with choice of career in the SoE (Click on a choice below) (Click on a choice below) Strongly agree Strongly agree Agree Agree Neutral Neutral Disagree Disagree Strongly disagree Strongly disagree I received appropriate academic advising to make decisions in I registered for the wrong specialization/phase and or modules initially but have self-corrected after I received academic advice, registering for my modules (Click on a choice below) enabling my decision to change and pursue my interests (Click on a choice below) Comment on these answers In my first year I was just doing as I see people doing I did not have Strongly agree much information about what I was doing but as time goes on I Agree understand that this degree is not just a thing but it is here to build myself and be able to take any decision for myself. I then started to Neutral trust myself and invent much time for my academic work. I got Disagree support from my friends and in my lectures but the bigger part was when test marks come back I will get higher marks then I will start to Strongly disagree wish that in all of my modules can I get higher marks only by that I start to study hard than before. I receive learning support and find all my lectures enjoyable (Click on a choice below) Strongly agree

Congratulations Letters

- Instance of Auto-message triggered intervention
- Maintain awarenessness
- Easy to auto-generate

Sent: Tuesday, 05 July 2022 22:29

Subject: Re: Congratulation letter

Good evening,

My apologies for the trouble. I just wanted to find out to qualify for cum laude or summa cum laude, is it calculated on an overall average of all 4 years of study that needs to be 75% or above or each semester average needs to be above 75% or above? Unfortunately, my average for this semester is 72, I was hoping to find out if this would jeopardise my chances of getting cum laude even if I was possibly to get 75 or above in the second semester. Hope you can assist, I'm greatly sorry for any inconvenience. Thank you.

Kind Regards



Dear Student

It is with great pleasure to inform you that you have been identified as a well-performing student, having achieved a weighted average of 70% and above, and for that, well done. You stand a chance of having your degree awarded Cum Laude, or Summa Cum Laude. Congratulations. It is pertinent to bring to your attention the following:

A. Criteria for the degree to be awarded cum laude

A degree of Bachelor may be conferred **cum laude** in accordance with the rules of the relevant college, provided that, subject to exceptions as approved by the college academic affairs board, the student has:

- (i) obtained a credit-weighted average of at least 75% in those modules required for the qualification; and
- (ii) successfully completed all modules in the curriculum at the first attempt and without recourse to supplementary examinations;
- (iii) completed the degree in the prescribed minimum time, and
- iv) obtains a minimum of 75% in EDTP420.

B. Criteria for the degree to be awarded summa cum laude

A degree of Bachelor may be conferred summa cum laude in accordance with the rules of the relevant college, provided that, subject to exceptions as approved by the college academic affairs board, the student has:

- (i) obtained a credit-weighted average of at least 80% in those modules required for the qualification; and
- (ii) successfully completed all modules in the curriculum at the first attempt and without recourse to supplementary examinations;
- (iii) completed the degree in the prescribed minimum time, and
- iv) obtains a minimum of 75% in EDTP320 and EDTP420

You are advised to continue to work diligently in 2022

Dr. Khumalo

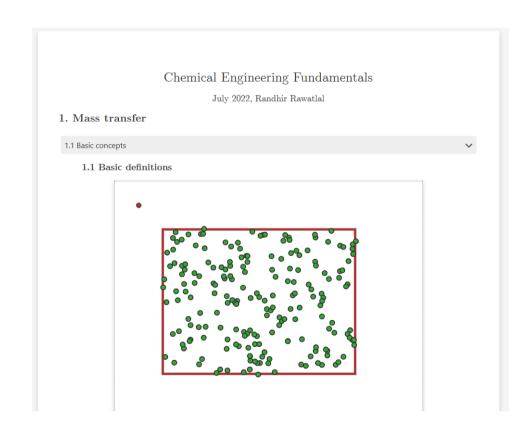
AL: Teaching and Learning College of Humanities School of Education Campus: Edgewood Email: KhumaloS13@ukzn.ac.za Website: www.ukzn.ac.za





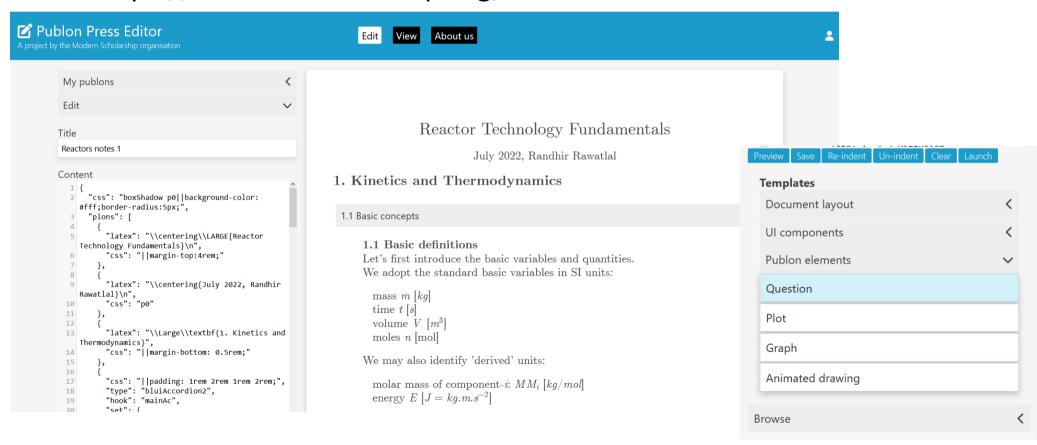
Attaching Teaching content – Publon Press

- Interactive creation of
 - Animated simulations
 - Latex documents
 - Fully rendered math equations
 - Auto-generation of assessment questions
 - Auto-grading of assessment questions
 - ❖ Self-testing and self-evaluation
 - Global repo of education content
 - Integrated ranking



Creating automated questions [skip]

https://modernscholarship.org/PublonPress



Auto-gen, Auto-grade

- Questions including randomised values
- Auto-generated solution
- Modes include
 - Training
 - Class poll
 - Questionnaire
 - Credit-bearing assessment
- Extend range of question types
- Potential for NLP for non-MCQ

Example

An initially empty container of volume $5m^{\rm S}$ fed with a liquid of density $1200kg/m^{\rm S}$ by a pipe of diameter 2cm is filled after 60 minutes. What is the velocity of the flow?

Please click on your answer

0 m/s

0.000314 m/s

4.43 m/s

0.00139 m/s

My Grade

Your answer 4.43 m/s is worth: 1 marks

We first calculate the area as $A=\pi.d^2/4=0.000314m^2$. We note that the flowrate is

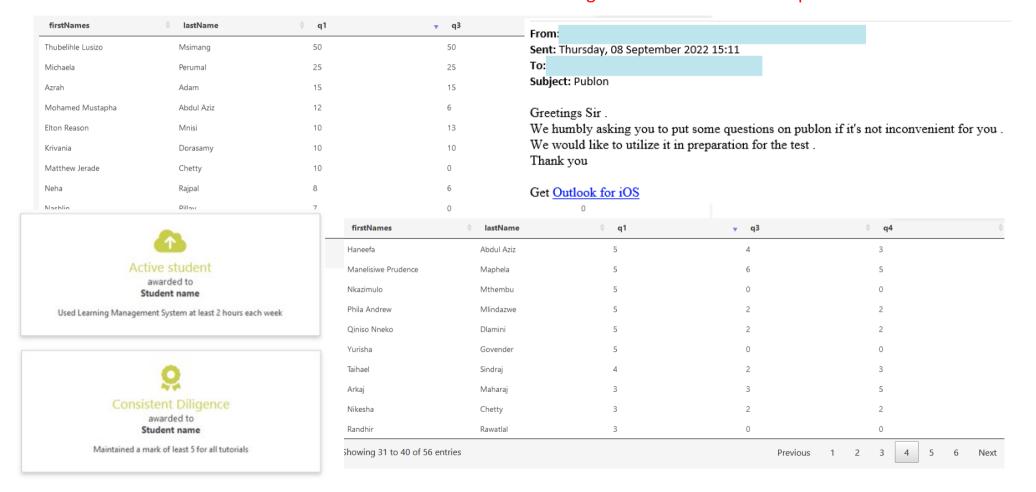
$$\dot{V} = \frac{\Delta V}{\Delta t} = 0.00139 \, m^3/s.$$

The velocity is then

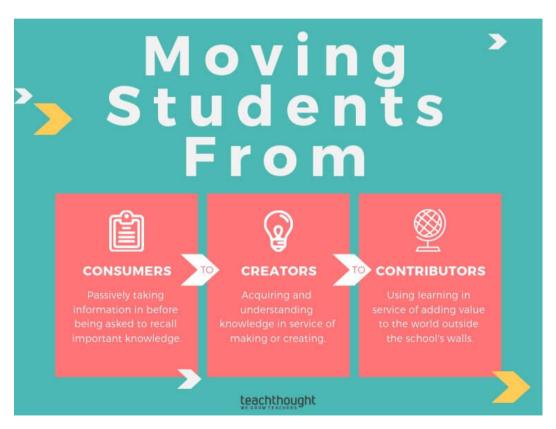
$$u = \frac{\dot{V}}{\Delta} = 4.43 \, m/s.$$

Student response

Message received from Class Representative



Student as creators [skip]







- Original release editor for tutor creation support, colecturer
- Is creating content happily
- Students as creators
- Open Education rEsources
- National resource

Interest from institutions

- DUT close involvement, training programmes
- UKZN student risk
- WITS boosted models
- CPUT accreditation
- NWU, UWC AutoAssessment



- From more than one network partner: As part of Siyaphumelela, do we have access to AutoScholar? (Create a network service?)
- Possible DHET collaboration
- Balance open-source approach

Most significant Outcome of Kresge/Siyaphumelela Engagement

Launch of the Hub for Innovation in Learning and Teaching (HILT)

- Acknowledges the absence of a coherent systemic approach to T & L + Research for student success
- HILT will provide leadership and support to incubate and develop innovative ideas into products, projects, processes, and capacity to advance and institutionalise innovative teaching and learning at UKZN with students at the centre of the T & L universe.

Thank you for listening

- ❖ ASAF
- Student Advising for specific goals
- Automation for scale
- "Advising the Advisor"
- Student, lecturer, programme, institution
- Concept scaffolding
- Auto-assessment
- Open Education Res
- Multi-institution studies
- Financial report
- Launch of HILT

