



Personalising Learning through DigiExplanations

Never Stand Still

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Background

- UNSW strategy has set two priorities to achieve excellence in teaching :
 - ‘personalising learning’
 - ‘using novel technologies’
- This is driven by the industrial & socio-economic needs:

“producing a workforce with flexible and adaptive skills in learning the latest industrial innovations”

“non-traditional students and different backgrounds”
- Qs:
 - What does “personalising learning” mean ?
 - What novel technologies are available to personalise learning?
 - How they may be implemented in one’s course?
 - What is their effectiveness in enabling to achieve the desired learning outcomes/graduate attributes?

What is personalised learning?

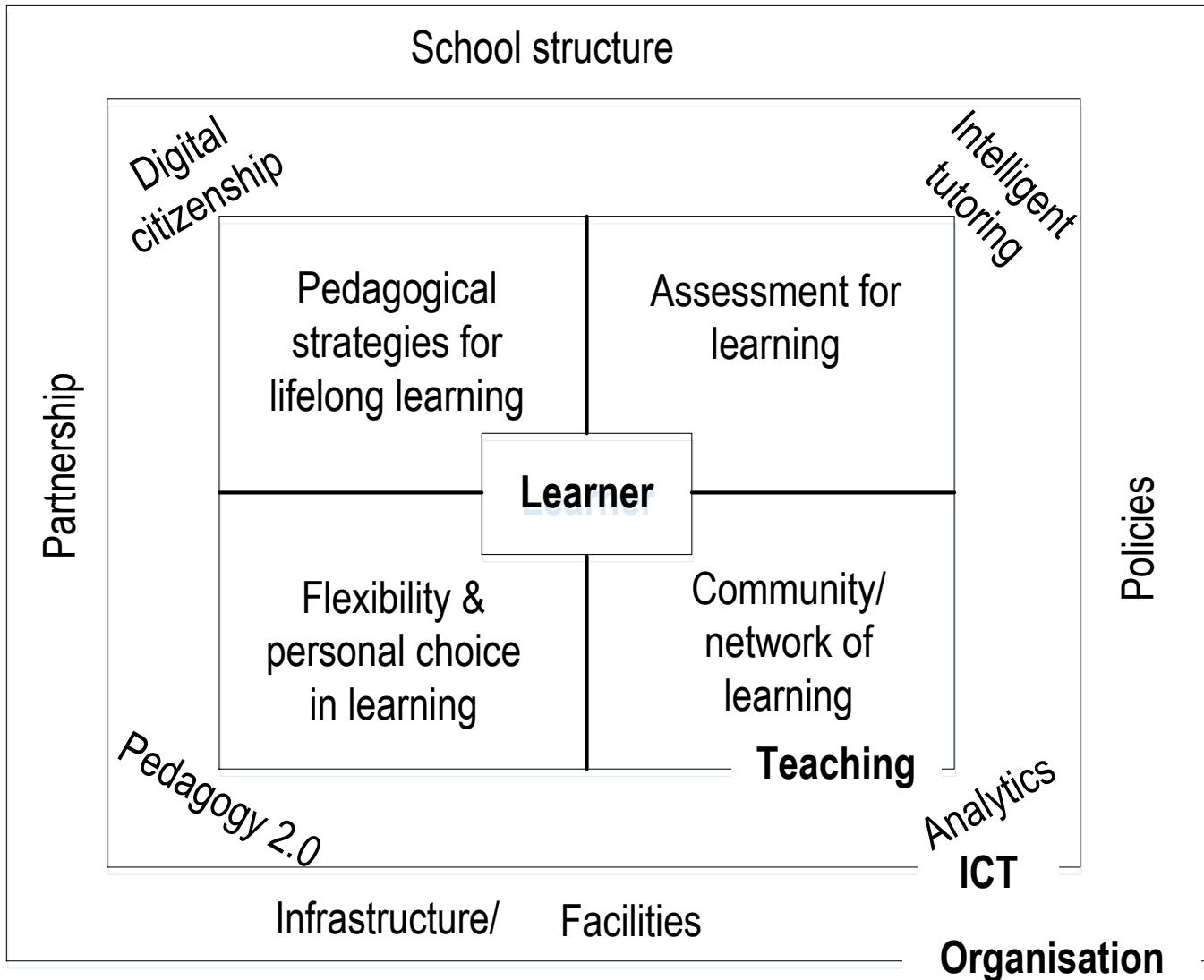
Fundamental features of personalised learning (Hanover Research 2014) :

- tailoring learning plans/paths to suit the needs of individual students
- supporting students to realise their potential
- engaging and motivating students by making learning activities authentic and relevant to their life, interest and goals
- providing flexibility in how, what, when and where students learn
- encouraging relationship between students, educators, institution and community
- preparing students to be life-long learners.

Characteristics of PL

- Locus of control/ learner-centred
- Classroom culture
- Knowing students learning progress
- Active student engagement
- Community of learning or collaboration
- Lifelong learning
- Advanced use of ICT

Conceptual framework for PL



DigiExplanation for personalisation

- This approach requires students to create short, interactive digital media to communicate to ordinary audiences while satisfying the marking criteria.
- Types of digital media developed include:
 - podcasts
 - digital stories
 - videos
 - slowmations (slow animations)
 - video scribes
 - blended media.
- DigiExplanations offers a mechanism to bridge pedagogy 2.0 for researched-based learning.
- Further details :<http://www.digiexplanations.com/>

Study objectives:

- Developing an assessment model that leverages digiExplanations for construction education
- Operationalising the assessment model
- Measuring its effectiveness for personalising learning for students.

Case study of application

- A first year course in the Bachelor of Construction Management and Property degree program was selected as the case.
- The process:
 - implementing a digiExplanation-based assessment in the course
 - conducting a questionnaire survey to evaluate the effectiveness of the model for personalising learning.

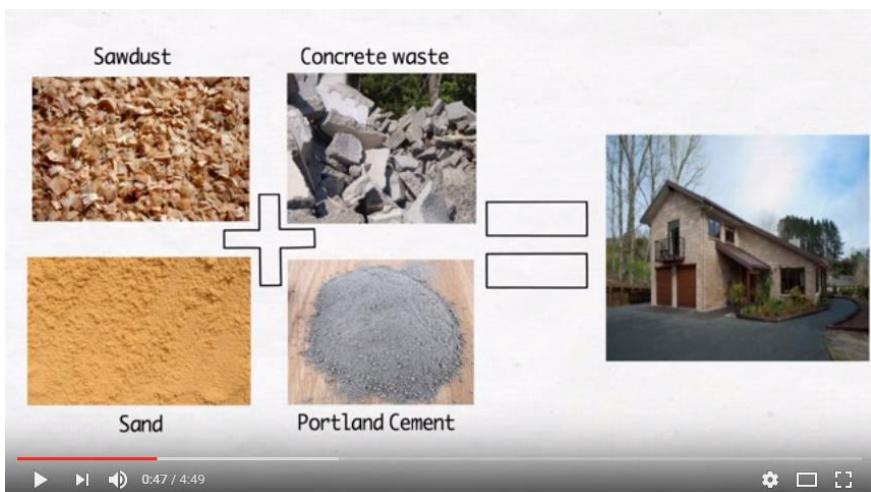
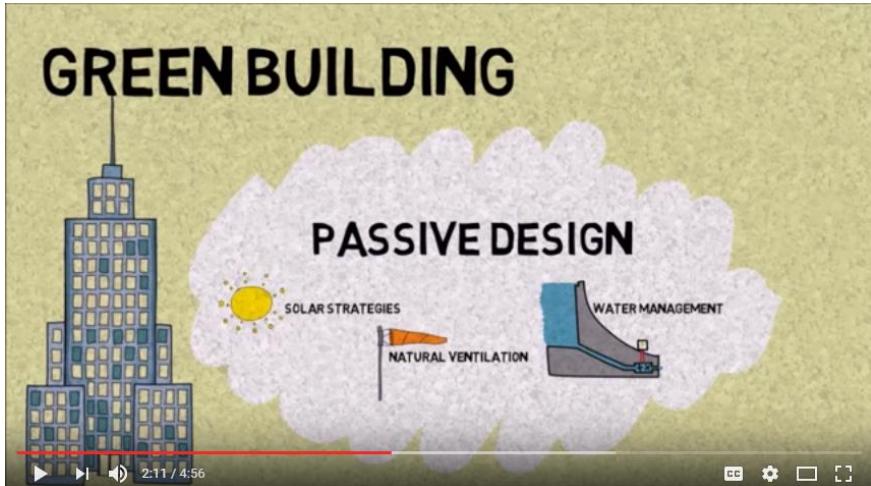
Assignment Details



Weekly Plan

Week	Task	Location / Time
W2	Topic - groups are to brainstorm for a suitable topic for study, obtain approval for the topic and register it with the lecturer	In tutorial class
W2 – W7	Research – groups are to research on the selected topic and compile information and media illustrations, including own media	Outside class hours
W7	Progress review and feedback 1 - groups are to discuss their research findings with the lecturer/tutor and get feedback for improvement	In tutorial class/ consultation by appointment
W7-W10	Storyboarding – groups are to organise their digital explanation in a storyboard	Outside class hours
W10	Progress review and feedback 2 - groups are to discuss their storyboard with the lecturer/tutor for feedback	In tutorial class/ consultation
W10-W13	digiExplanation creation	Outside class hours
W13	Assignment submission	FBE Student Centre

Submissions



Student submissions: https://www.youtube.com/results?search_query=bldg1302

Effectiveness of the teaching model

- Questionnaire survey
- Response rate: $108/159 = 68\%$
- Questions assessed how the new method satisfied the components of personalised learning
- Qualitative feedback was also received.
- Qualitative feedback contradicted the quantitative ratings.

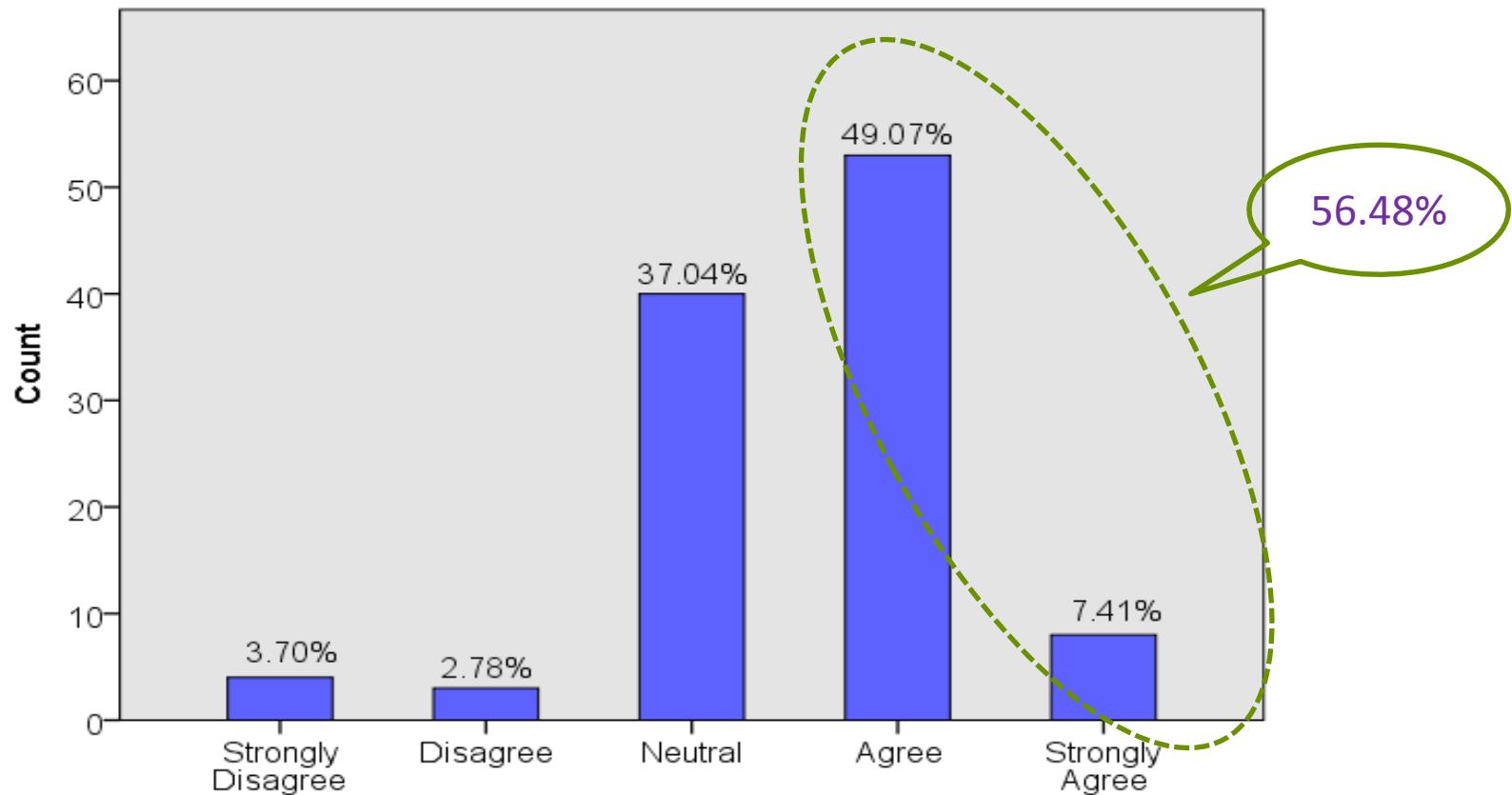
Qualitative feedback

- *It was very different to other assignments such as essays and reports thus making it more entertaining to undertake.*
- *It was great to collaborate in groups so knowledge from each individual could be shared, subsequently leading to more ideas and information being put forward.*
- *The use of technology was also a very positive learning experience which will be very useful in other university assignments and in the real world.*

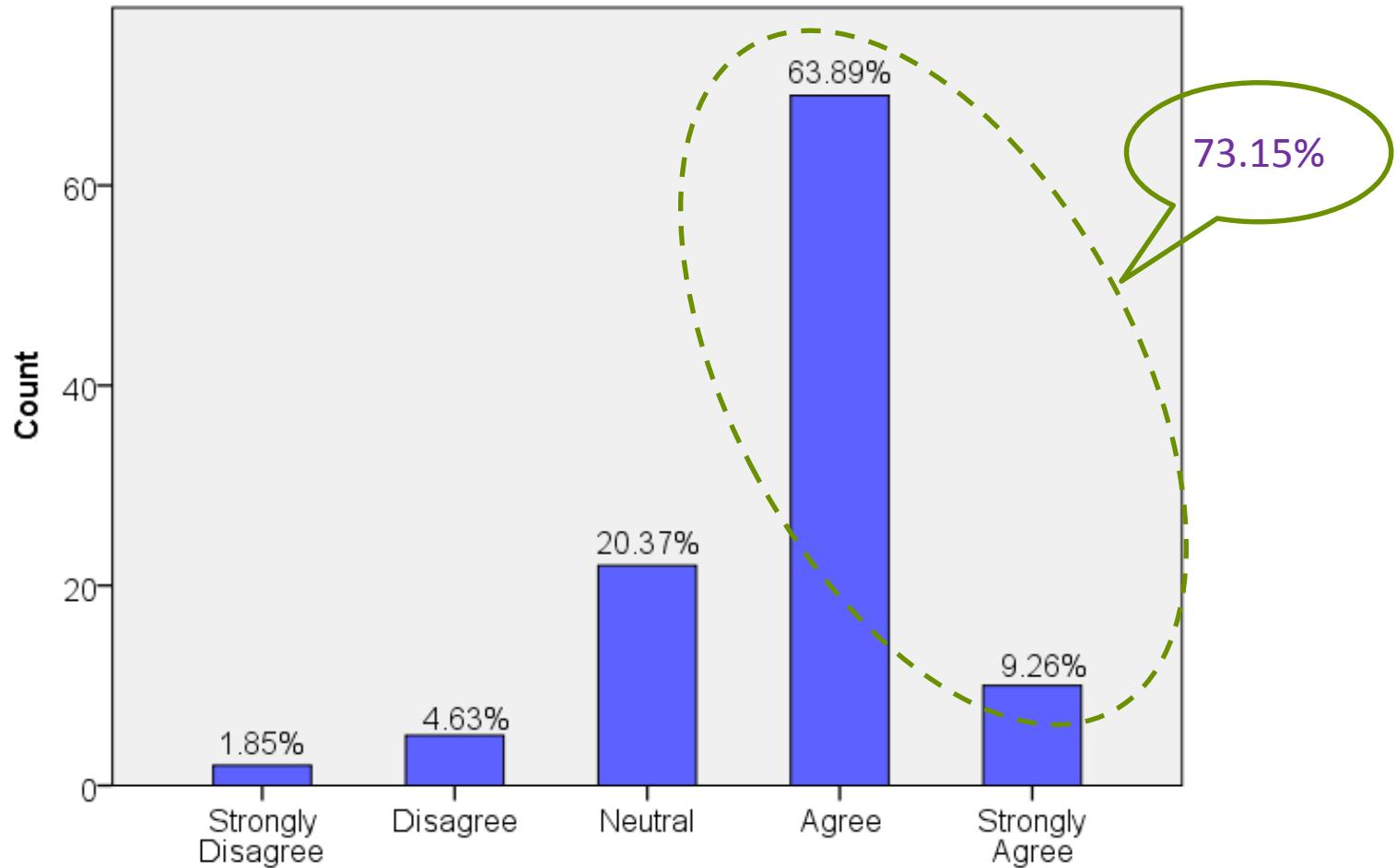
- *It allows for students to learn new skills not only with the use of computers, but researching, strengthens confidence and allows for current skills to be furthered. An all round effective method in learning a topic as a whole whilst developing other skills.*
- *Very easy to learn from the digiexplanations, easy again for ESL students who can watch the video if they don't understand.*
- *Make use of hobbies and multimedia experience in conveying or delivering research/ report.*
- *Interactive learning by bringing ideas across, through creative interpretation, on a globally recognised media stage (YouTube)."*

Quantitative comments

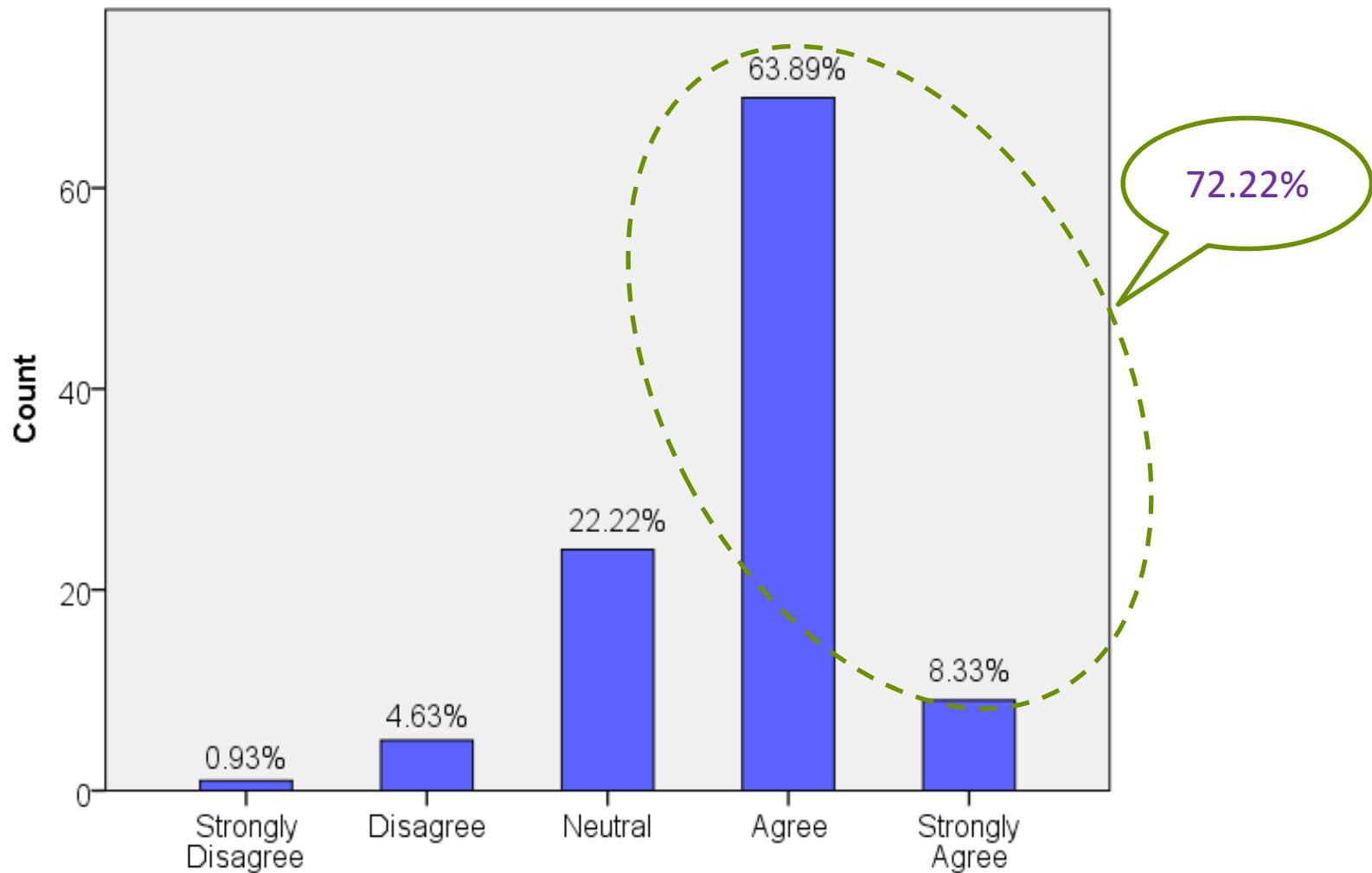
The digiExplanation assignment allowed you to explore and learn a topic that is **personally interesting / relevant to you.**



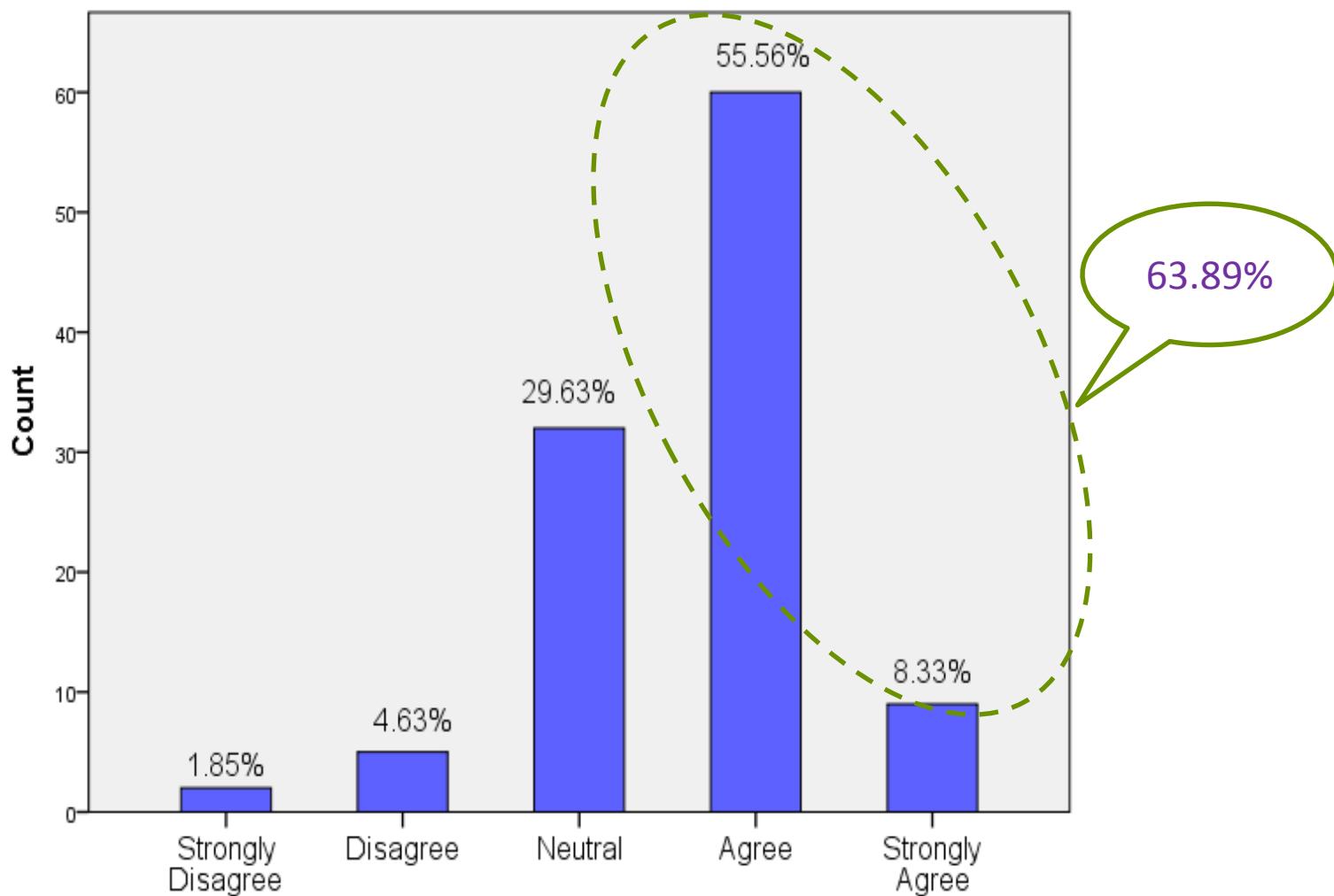
The digiExplanation assignment provided you with the **flexibility** to present your work/ideas in a way you like.



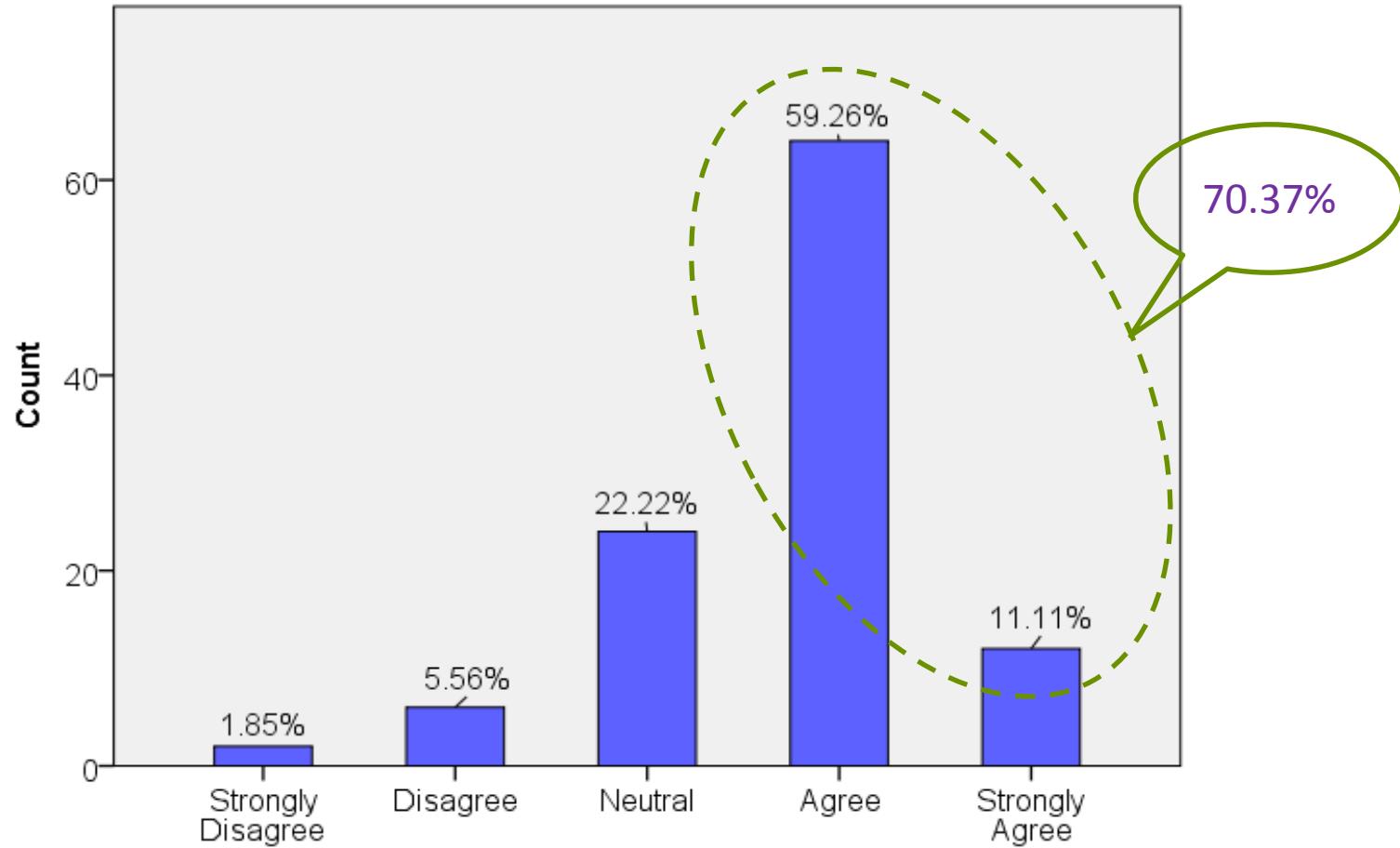
The digiExplanation assignment enabled you to build on your previous knowledge on the subject.



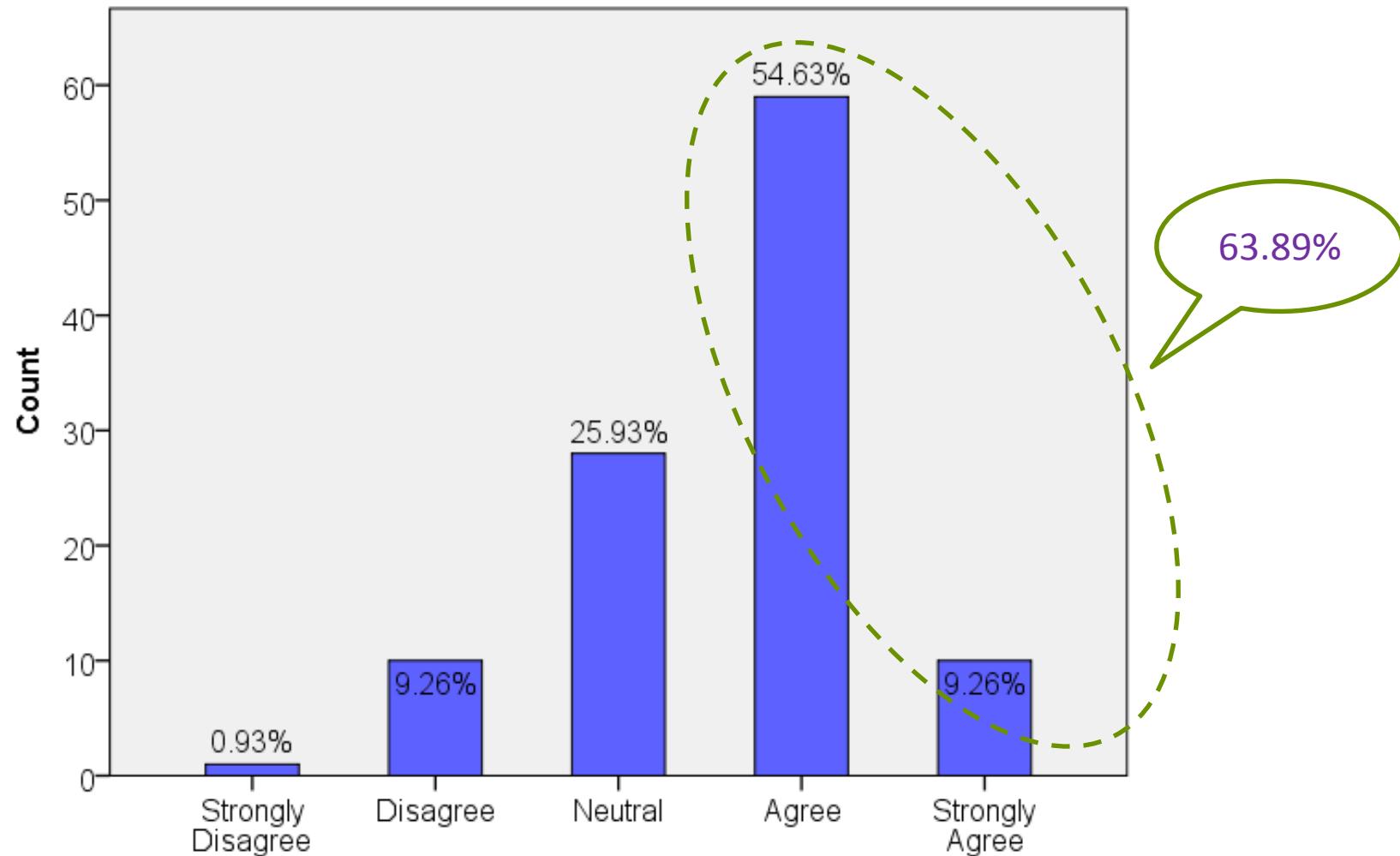
The digiExplanation assignment nurtured **engaged** learning.



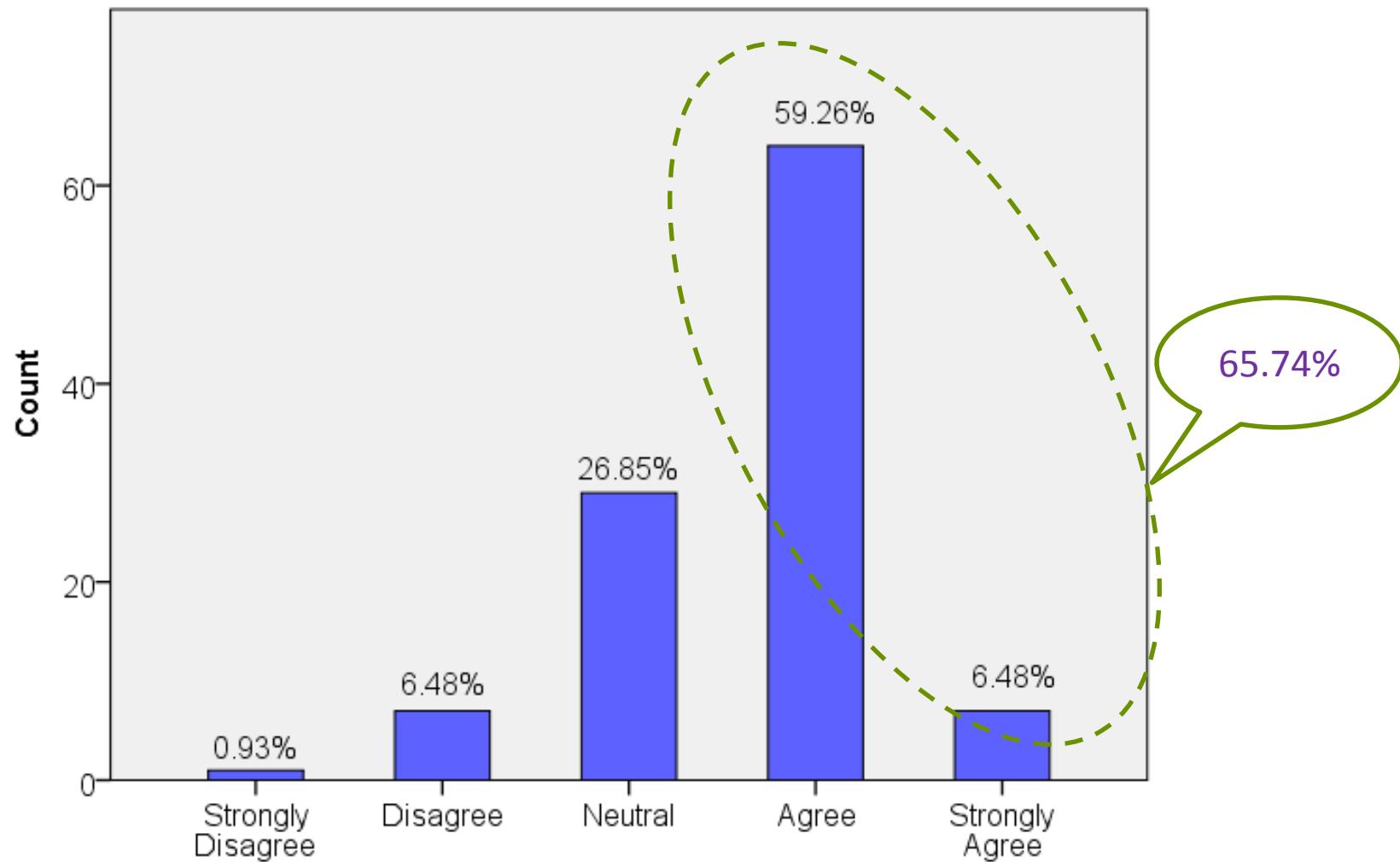
The digiExplanation assignment facilitated collaborative knowledge building.



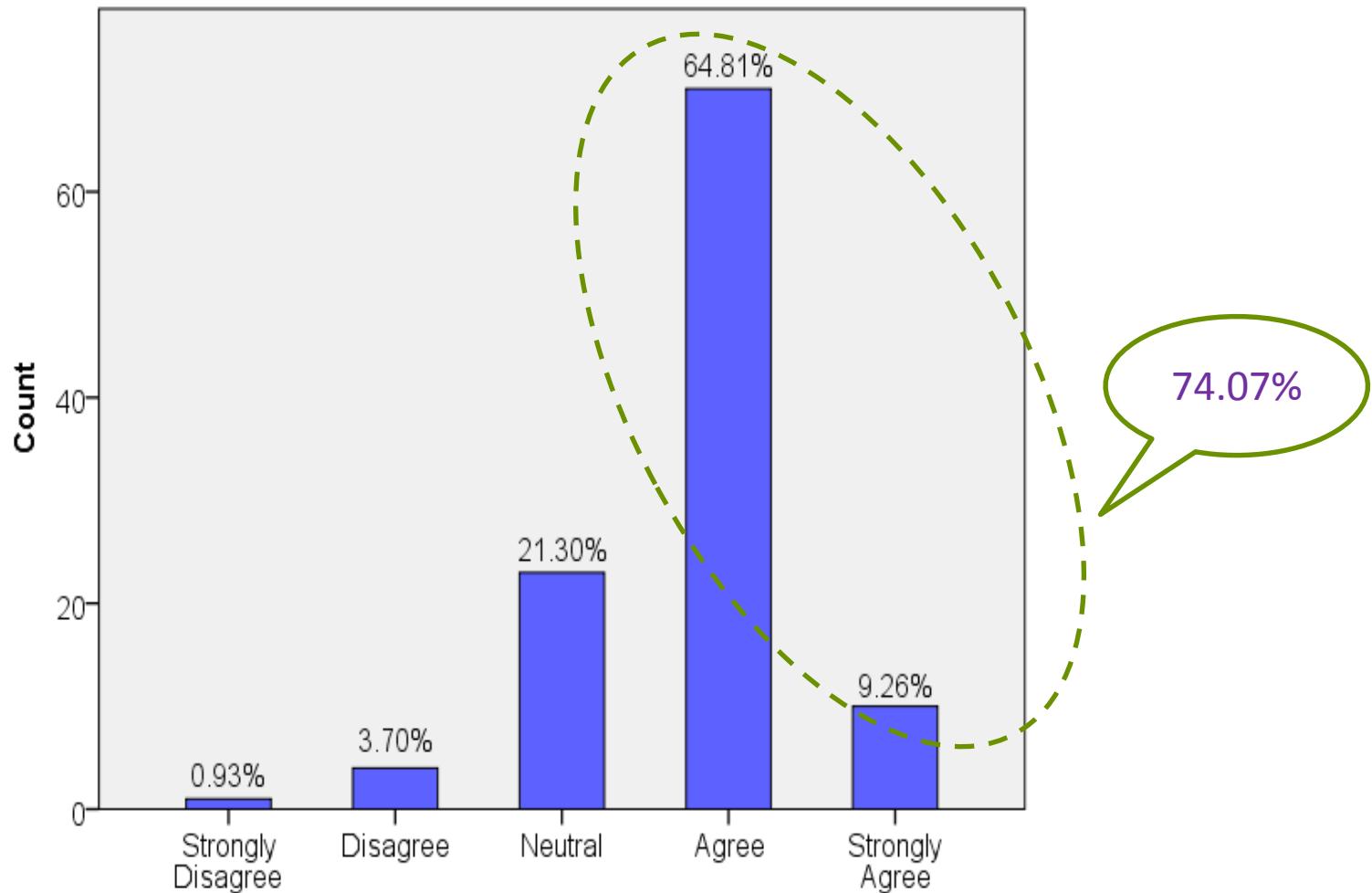
The digiExplanation assignment enabled you to capitalise on digital competencies that you already possessed.



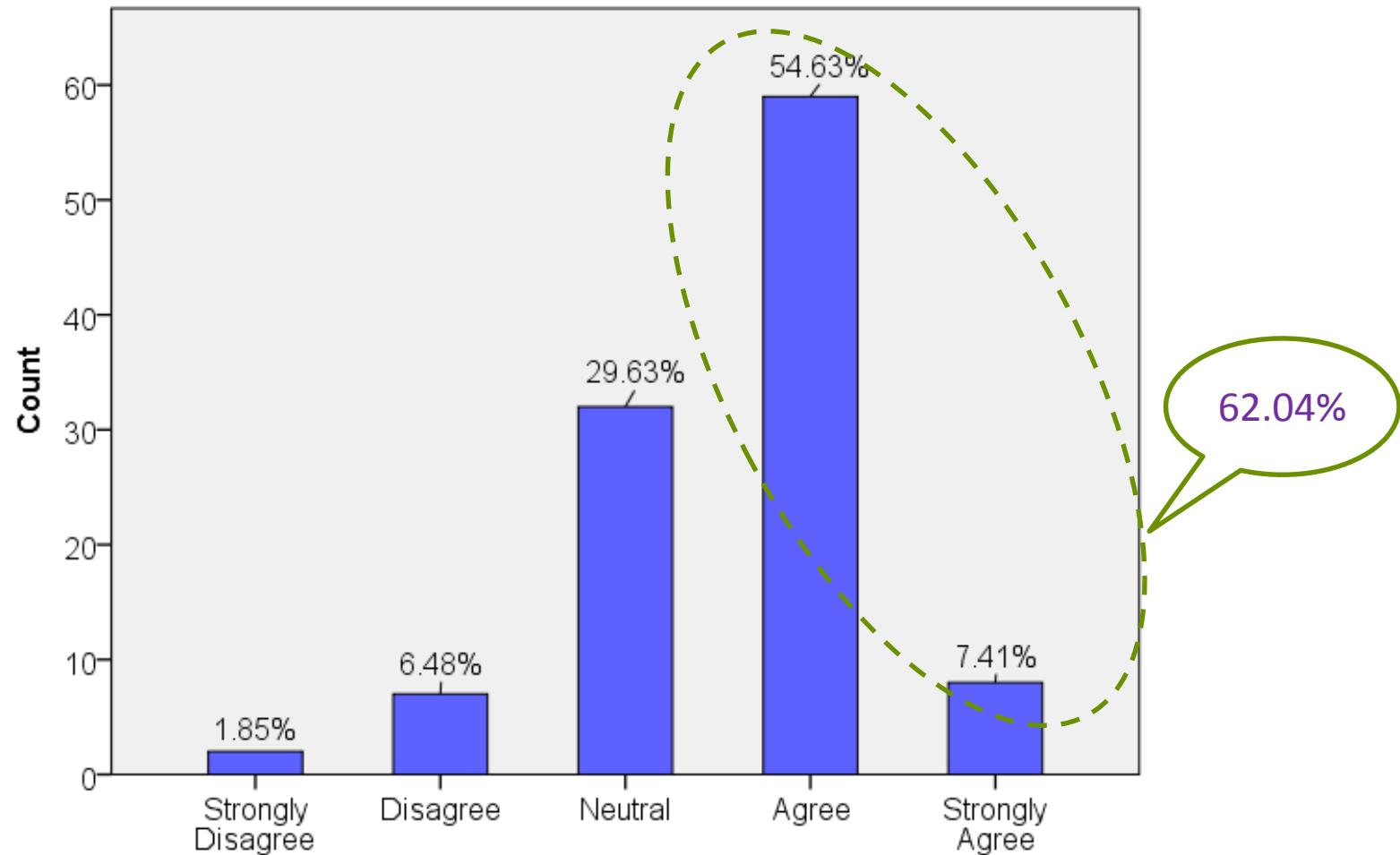
The assessment fostered personally meaningful authentic learning by harnessing resources that exist on the Internet.



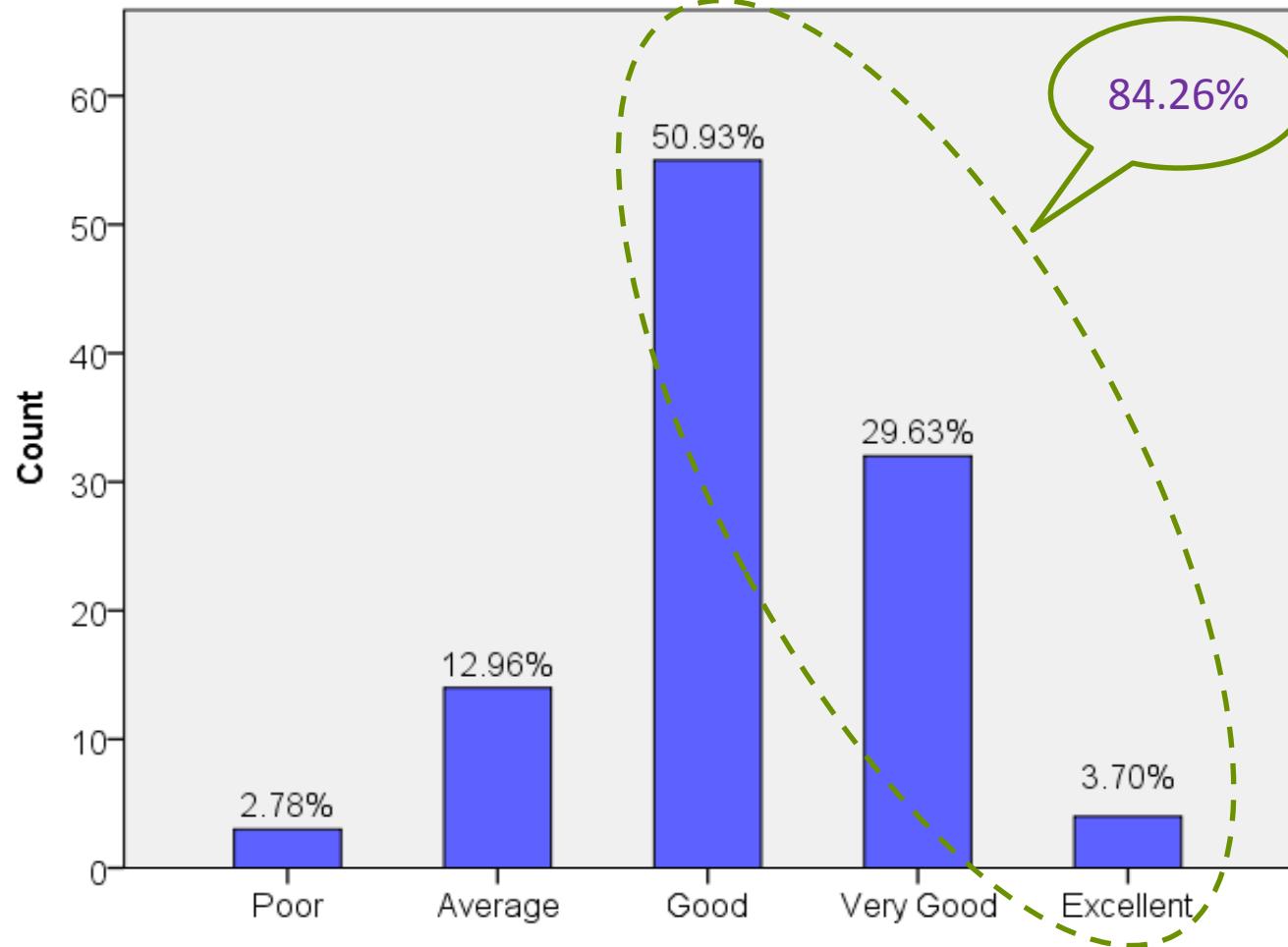
The digiExplanation assessment encouraged self-managed learning of new knowledge.



The progressive **feedback** mechanism built into the assignment supported you to realise your potentials.



Overall, how would you rate your learning experience with the digiExplanation assignment in the course?



Reasons for reserved attitude

- Lack of examples of previous assignments as this was the first time the model was implemented.
- More work is required to produce a good digiExplanation than making a traditional report submission.
- Inadequate contributions or delays by some group members make others hate group tasks as it pulls everyone down.
- Lack of prior skills in digital media creation in some group members, which burdens others.

Correlation analysis

	Learning experience (R)
Personally interesting/relevant	0.577
Flexibility	0.545
Building on prior knowledge	0.519
Engagement	0.640
Collaboration	0.465
Capitalise on digital competencies	0.291
Harnessing Internet resources	0.656
Self-managed learning	0.467
Progressive feedback	0.624

Conclusion

- Personalising learning is a paradigm shift that has implications on the planning of infrastructure, policies and personnel in universities.
- Significant uptake of it requires changes in all levels – university, faculty, program and course.
- However, individual lecturers can still achieve personalisation with the use of cost-effective/ free ICT technologies.
- Nothing tried, nothing achieved!
- Enthusiasm is necessary.

Acknowledgements

Thank you