Learning with mobile technologies

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Abstract This paper should give an overview of the most important points of Thomas M. Philip's viewpoint "Learning with mobile technologies". It should also confirm this viewpoint with the help of other texts and papers about this topic.

1 Introduction

This work is dealing with the article "Learning with mobile technologies"[Phi17]. "This Viewpoint presents [...] reflections on struggles encountered in a curricular reform project that relied heavily on new technologies in the classroom.[Phi17]" It's main part is divided into three sub parts, which will be treated separately. The first part is about challenges which come from mobile technologies in school. The second part deals with commitments which are essential for learning with mobile technologies and the last part covers the dilemmas that appeared with the introduction of mobile technology.

2 Main part

2.1 Challenges

For Philip the three core challenges are time consumption, students opposition and limits of the software.

Time consumption

First of all, there is the time consumption challenge. In advance Philip's project group haven't thought about the time for ensuring that "the technology worked with different platforms"[Phi17]. Therefore the instructional time for teachers was shortened, but the instructional time would be very necessary because some teachers use their computers outside and not inside the classes.[WC03] The problem is, that teachers who only use their computers at home are probably not familiar with the technologies in the classes and this is why they would need an appropriate instruction for it.

Students opposition

A further challenge of the project is the students opposition. The assumption of the project team "that mobile phones would motivate students"[Phi17], turned out to be false. It was even the other way around, "mobile technologies became a hindrance to students engagement."[Phi17]
Philip also mentioned this fact in [PG15]: "The students in the focus groups unequivocally described a sense of excitement when they first heard that they were going to use phones in the classroom.[...] However, these feelings of excitement were fleeting. As elaborated below, students' anticipation and delight quickly morphed into feelings of tedium, stress, and hassle."

Software limits

In Philip's opinion, the software limits are also a challenge to face. "The mobile app and the corresponding desktop-based software were often not responsive to students' developing interests".[Phi17] The main problem of this issue was that "students started asking questions they could not adequately answer with our platform"[Phi17]. This aspect is also mentioned in [LSZ+10], where it is said, that the function of the technology depends on many things, such as "the range of available software, the weight and robustness of the device, and functionalities such as a built-in camera or Global Positioning System."[LSZ+10]

2.2 Commitments

Philip emphasizes that it is very important to work with the involved persons (teacher and students) during the development of a new school specific technology to reach a fitting result.

Commitments to students

The problem for the students is that they get forced to solve problems with the technology which doesn't appear in the students real life. Therefore the students want a say in the use of the technology to make it fit better to their real world.
The lack of freedom of the students was also mentioned in [PG15], as it was written: "The lack of freedom was a recurring theme throughout the interviews and severely impacted how students disengaged from using the devices."[PG15]

Commitments to teachers

The team made the failure that they focused on " 'training' teachers to use particular technologies"[Phi17]. The professionality of the teachers needs to

be involved by creating and developing the technology in order to make it possible to use the technology in the regular school day and it also raises the chance that teachers use the technology in their school every day life.

2.3 Quandaries

Philip picked out three ”dilemmas about the use of mobile technology”[Phi17]:

- Who pays for the technology
  The question is who pays for the mobile technology. In case that schools had to pay for the mobile technology, students will become upset if other subjects (e.g. music) are deleted because the school invests the money in mobile technologies instead of these subjects.
- Students feel they lack freedom
  This part of the use of mobile technologies was mentioned in the text [PG15], as they mentioned a ”frustration about the limitations that were placed on the phones' capabilities”[PG15] or ”the limitations in students' ability to access the full potential of the devices”[PG15]. The result was, that ”their interest waned.”[PG15]
- Large amount of data is generated by students without explicit consideration or awareness

3 Conclusion

Mobile technology is not a universal remedy because ”if classrooms, schools, and society are inequitable, the introduction of mobile technology into classroom spaces will not fundamentally alter these inequities.”[Phi17] It is also necessary to involve the pedagogical part. ”We must create learning environments where students and their cultural practices are valued and built upon.”[Phi17]

”If we [...] address these needs, mobile technologies can benefit all students. Otherwise [...] the introduction of new technologies in classrooms will continue [...] to reproduce [...] failure.”[Phi17] For Philip it is necessary to introduce mobile technologies into school, because they ”become a more significant part of our daily lives, both in and out of school”[Phi17], but it should be done ”in a manner that deeply wrestles with the challenges and quandaries of mobile technologies, and in ways that honor the complexities of teaching and learning and respects the agency of teachers and students.”[Phi17]

References

[LSZ+10] Chee-Kit Looi, Peter Seow, BaoHui Zhang, Hyo-Jeong So, Wenli Chen, and Lung-Hsiang Wong. Leveraging mobile technology for sustainable seamless learning: a research agenda. *British journal of educational technology*, 41(2):154–169, 2010.

[PG15] Thomas M Philip and Antero Garcia. Schooling mobile phones: Assumptions about proximal benefits, the challenges of shifting meanings, and the politics of teaching. *Educational Policy*, 29(4):676–707, 2015.

[Phi17] Thomas M. Philip. Learning with mobile technologies. *Commun. ACM*, 60(3):34–36, February 2017.

[WC03] Robert Wald and Larry Cuban. Oversold and underused: Computers in the classroom, 2003.