Integrating CALL in Teacher Training

In times of change learners inherit the earth while the learned find themselves beautifully equipped to work in a world that no longer exists.

—Eric Hoffer

Background

- Brigham Young University's TESL MA is being revised as a result of feedback received from...
  - an academic review of the graduate programs in the Department of Linguistics and English Language conducted in 2006-2007
  - the university reaccreditation process and the resulting discussions on the important role of learning outcomes
  - a recent survey of graduates from BYU's programs.

What should the role of CALL be in the new program?

- BYU has always had great resources for students who are interested in CALL.
- The problem was that nothing systematic had been organized to ensure that all the students had CALL exposure.
- Would adding a class be sufficient?

- Probably not.

- Most of the research shows that a single class isn't very effect in training teachers in CALL.

- Teaching with technology in the language classroom has been described as a “wicked problem.”

Koehler, M. J. & Mishra, P. (2008) Technological Pedagogical Content Knowledge (PCK) for Educators

What is a *wicked problem*?

"Wicked problems possess a number of distinctive properties that violate the assumptions that must be made to use the problem solving methods of tame problems. Wicked problems:

- cannot be easily defined so that all stakeholders agree on the problem to solve;
- require complex judgements about the level of abstraction at which to define the problem;
- have no clear stopping rules;
- have better or worse solutions, not right and wrong ones;
- have no objective measure of success;
- require iteration-every trial counts;
- have no given alternative solutions-these must be discovered;
- often have strong moral, political or professional dimensions."

—Buckingham Shum, S. (1997). "Representing Hard-to-Formalise, Contextualised, Multidisciplinary, Organisational Knowledge"

How is it a *wicked problem*?

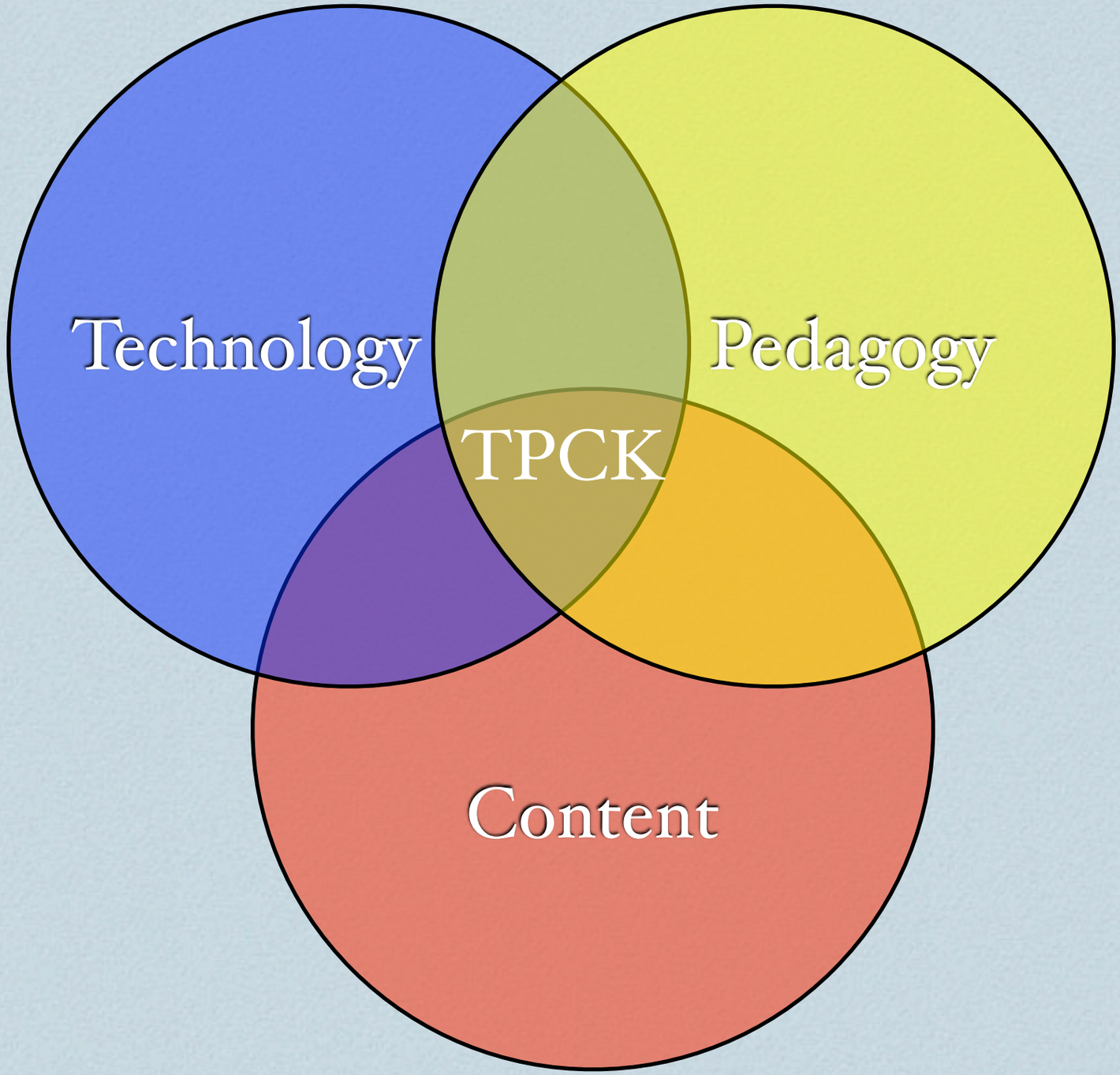
- Technology is always in flux.
- Technological change is ecological in nature.
- The way we teach is influenced by the way we were taught and our experience (be it positive or negative) with technology as a student will influence our attitude in using it as a teacher.
- Language students have various levels of technological expertise.
- Each setting has different technological resources.

How do you prepare teachers for all the possibilities?

Teachers need to be trained to…

- recognize and learn how to use the technology that exists and is evolving.
- apply the technology to the content they are teaching.
- apply the technology to their teaching methodology
- appropriately integrate the technology with language teaching

Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge



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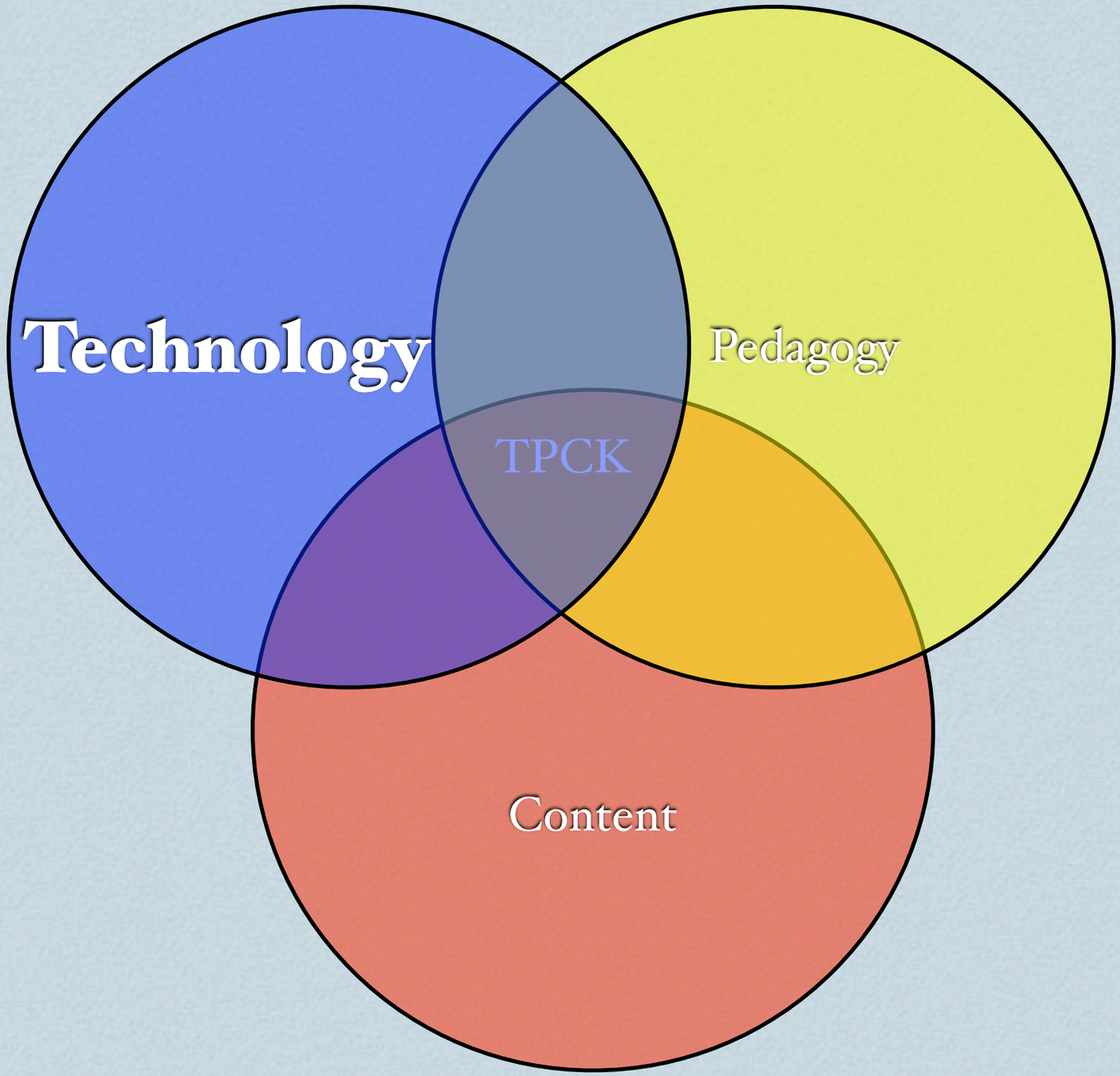

Technological Knowledge

- How to use technology

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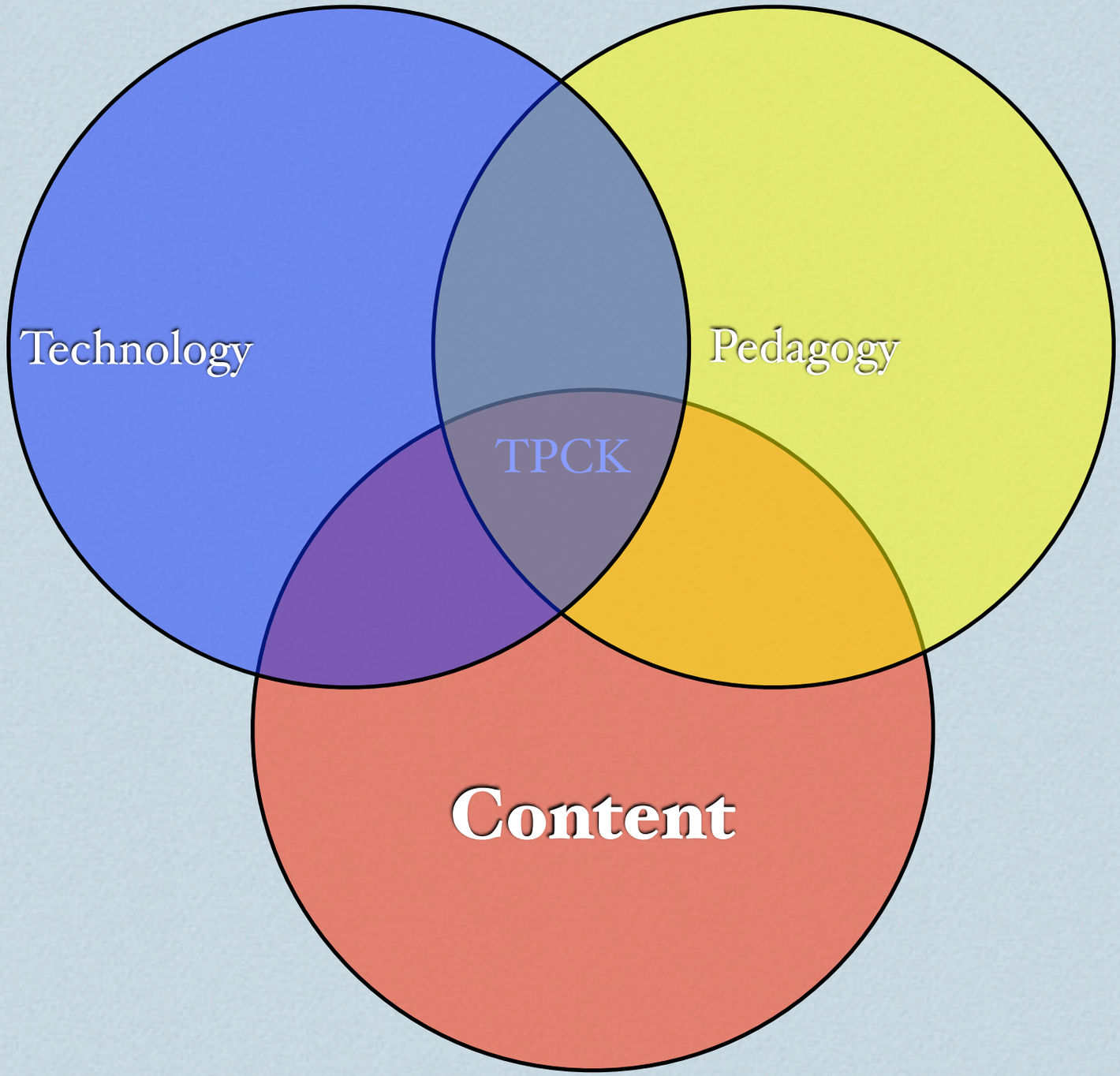

Content Knowledge

- The particular domain of knowledge—reading, writing, speaking, pronunciation, grammar, etc.

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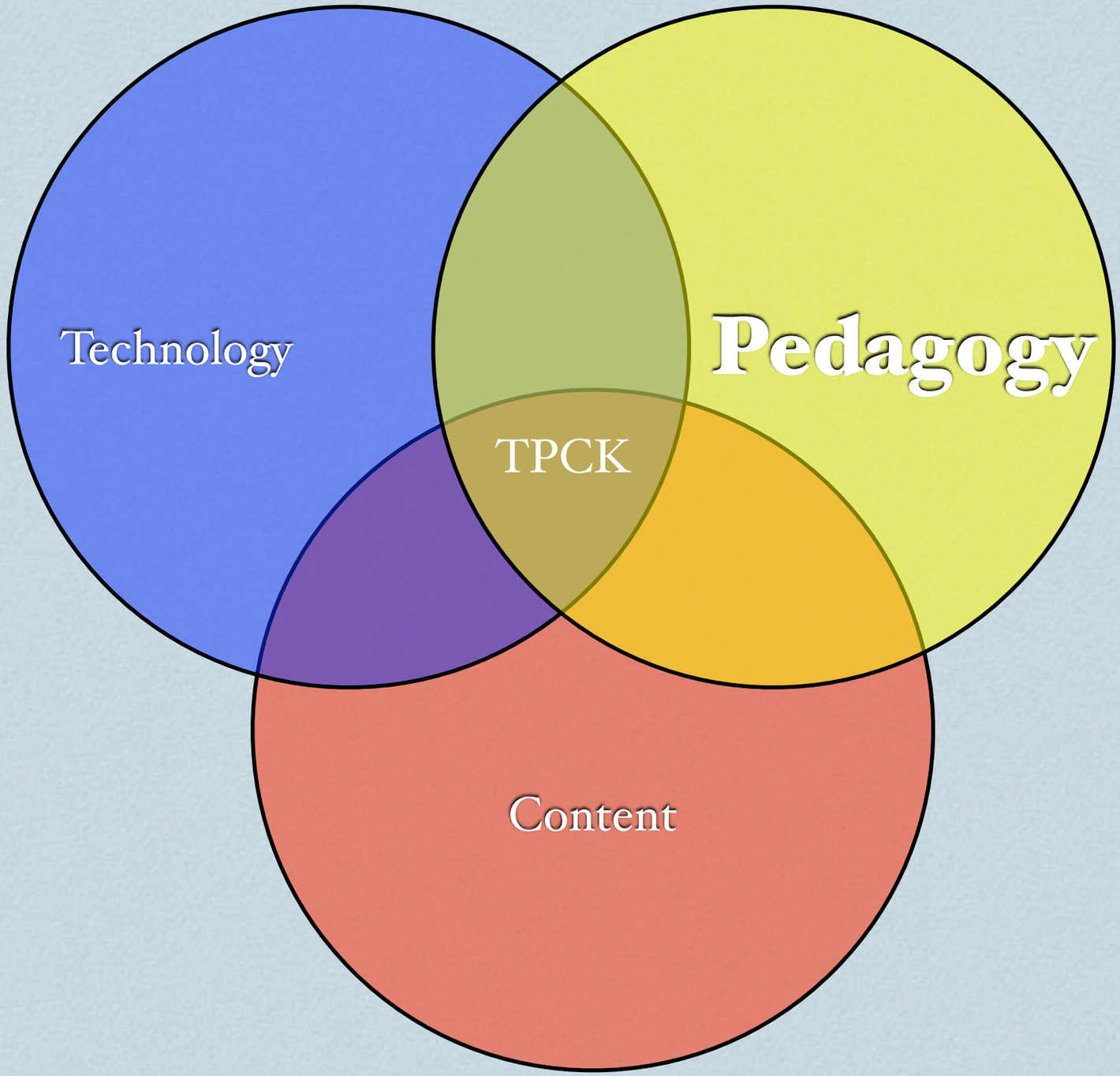
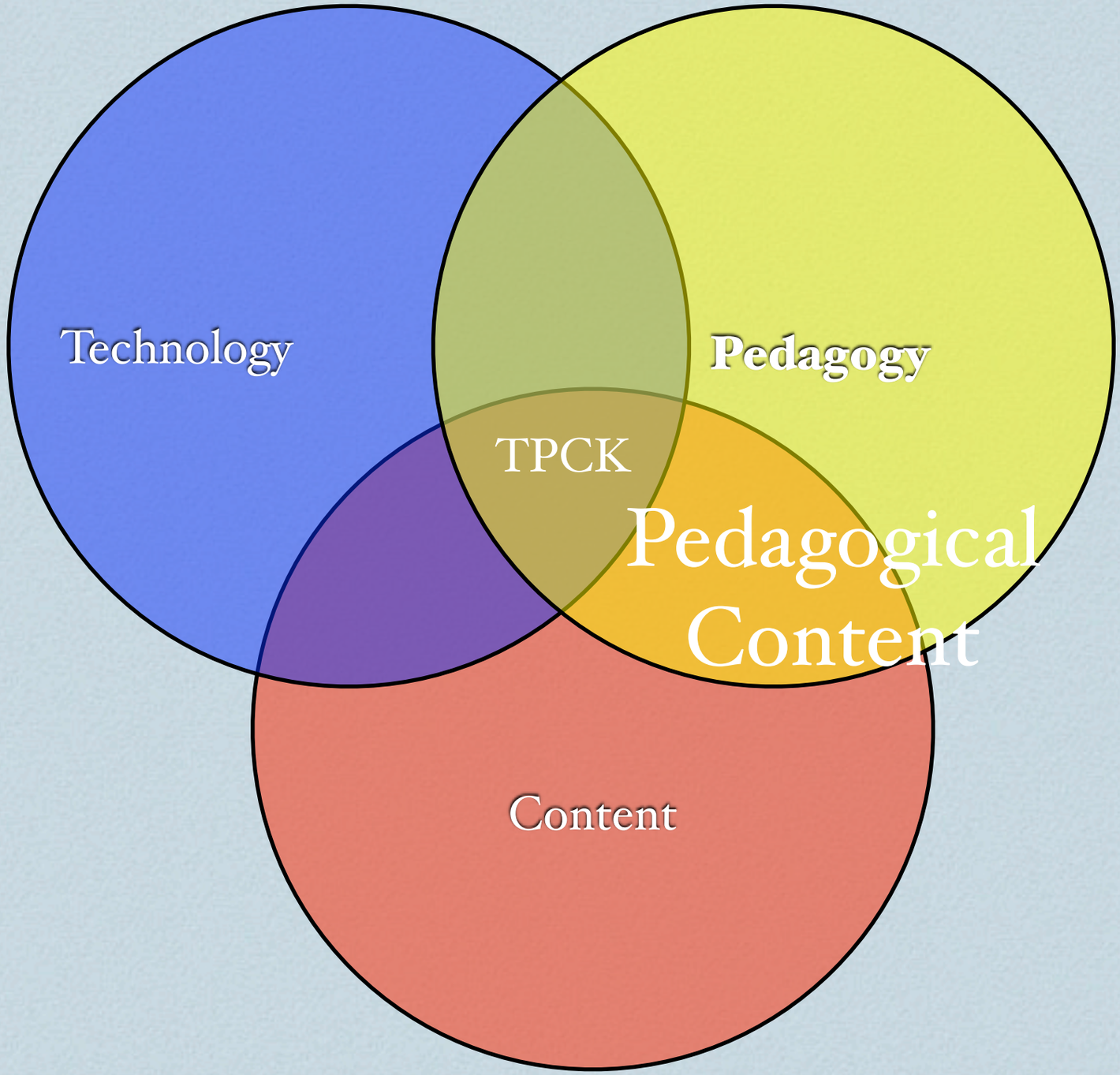


Pedagogical Knowledge

- How to teach and help others learn

Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge



Pedagogical Content Knowledge

- How to teach a particular domain of knowledge—reading, writing, speaking, pronunciation, etc.

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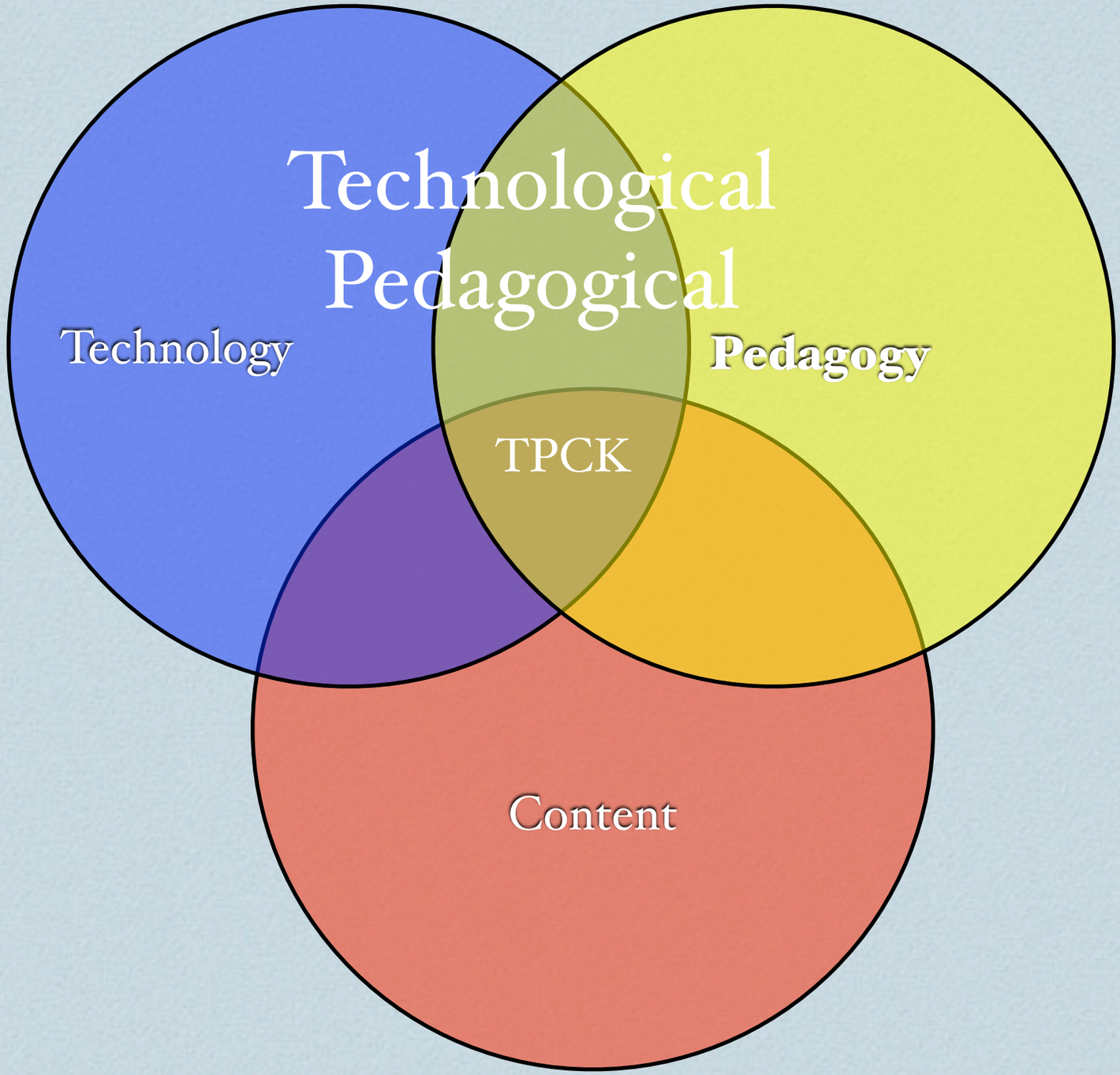
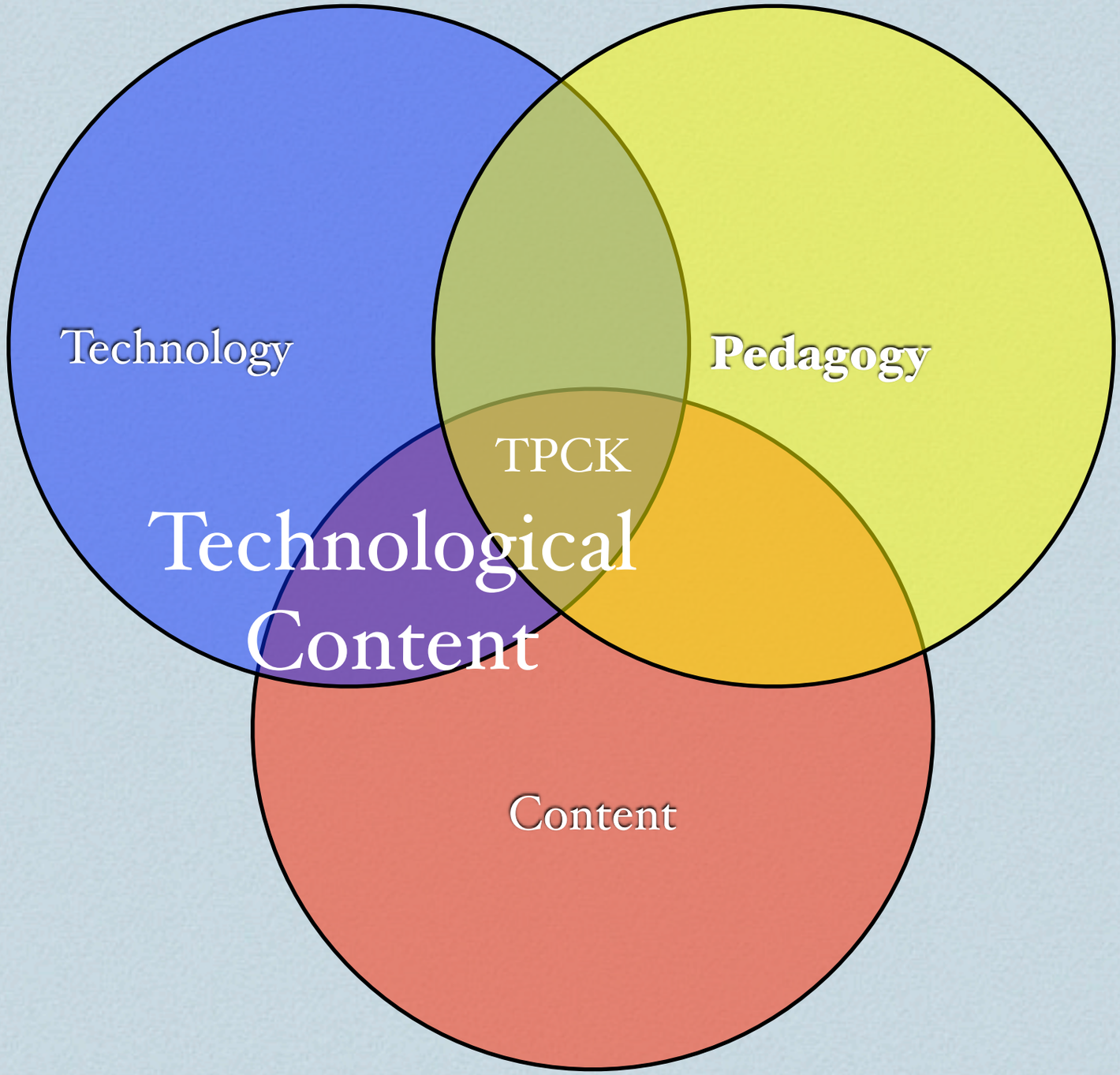


Technological Pedagogical Knowledge

- How to use technology to teach (e.g. Course Management Software (CMS), Grading Software, etc.)

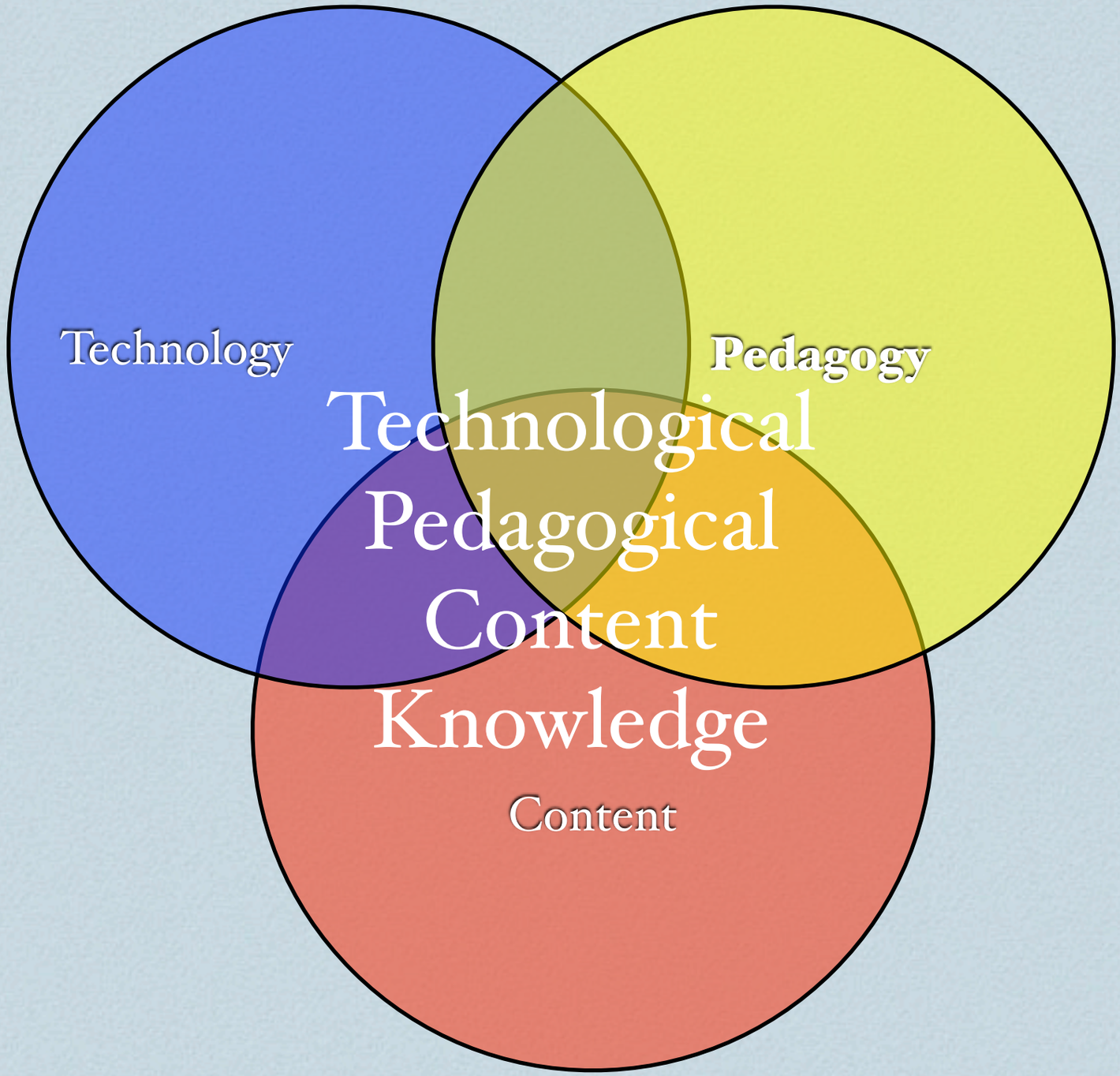
Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge



Technological Content Knowledge

- How technology affects content knowledge. For example, corpus linguistics didn't develop as a field until the technology was there to support it.

Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge



Technological Pedagogical Content Knowledge

- How technology and pedagogy interact to teach specific content.
- For example, teaching grammar by induction through the use of corpus linguistics

Bloom's Revised Taxonomy (Knowledge)

- Remember
- Understand
- Apply
- Analyze
- Evaluate
- Create

Types of Knowledge

- Factual
- Conceptual
- Procedural
- Metacognitive

	Remember	Understand	Apply	Analyze	Evaluate	Create
Factual						
Conceptual						
Procedural						
Metacognitive						

Teachers need to do more than *remember* and *understand* to effectively use technology in their teaching.

Applying these principles to the restructuring of BYU's TESOL MA

Content Knowledge

- English Proficiency
  - Students admitted to the M.A. program need to prove English Proficiency through the GRE and TOEFL (for nonnative speakers)
- English Linguistic Knowledge
  - Will be taught in Foundation Courses–Ling 501, 502, 503 (Sound, Structure, and Meaning)

Pedagogical Knowledge

- Objectives for this domain are taught in the methods courses (e.g. Ling 577, 578, & 579).

Pedagogical Content Knowledge

- Objectives for this domain are introduced in the methods courses (e.g. Ling 577, 578, & 579)
- Further instruction will take place in the elective courses

Electives

- LING 625 Speaking Theory and Pedagogy
- LING 631 Grammar Theory and Pedagogy
- LING 655 Culture Teaching
- LING 672 Reading Theory and Pedagogy
- LING 673 Writing Theory and Pedagogy
- LING 674 Listening Theory and Pedagogy
- LING 675 Second Language Vocabulary Acquisition and Teaching
- LING 677 Curriculum Development
- LING 678 Materials Development
- LING 679 TESOL Supervision-Administration Internship

Technological Knowledge

- There is insufficient time/credit hours to teach M.A. students the fundamentals of the Technological Knowledge Domain.
- Technological knowledge at the graduate level will be at the cognitive level of *Apply* or higher.
- Students will be required to demonstrate their skills within the first semester of being admitted to the program.
- It will be modeled after BYU's School of Education's Technology Skills Assessment

Technology Skills Assessment (TSA)

As part of the education program, you must possess certain basic technology skills. Follow these simple steps to complete your Technology Skills Assessments.

Step 1: Prepare for the Assesment

Clicking on the links below will provide you with a list of skills that you are required to know for each area, as well as resources to help you learn any skills that you may not have.

- Word Processing
- Spreadsheets
- Presentations
- Internet & Communication

Step 2: Print out TSA Reporting Form

When you are ready, print out your TSA Reporting Form, fill out the upper portion, and take it to the Teaching & Learning Support Center (180 MCKB).

Step 3: Complete each Assesment

At the TLSC you will be given a task to test your ability in each of the areas. Each task must be completed in under 30 minutes, but you do not have to complete all tasks at once (you may wish to complete one task per day, for example). As you successfully complete each task, your TSA Reporting Form will be stamped by a Computer Assistant.

Step 4: Bring completed form to TLSC

If you are a secondary education or special education major, you will bring your completed TSA Reporting Form to the TLSC and exchange it for a stamp in your program checklist. If you are an elementary or early childhood education major, your program has not finished creating a program checklist. In this case you should bring your completed TSA Reporting Form to the TLSC and exchange it for a Completion Certificate to give to your program.

*Students with Disabilities

If you have any disabilities which may impair your ability to complete the TSA please contact the University Accessibility Center (422-2767). Reasonable academic accommodations are provided for all students who have qualified documented disabilities.

Technological Pedagogical Knowledge

- Objectives for this domain will be integrated in the methods courses (e.g. Ling 577, 578, & 579).

Technological Content Knowledge

- Objectives for this knowledge domain will be included in
  - the linguistics foundation courses (Sound, Structure, and Meaning)
  - the elective courses

Technological Pedagogical Content Knowledge

- Objectives for this knowledge domain will be included in
  - the methods courses
  - the elective courses

How to Integrate Technology with the Linguistics Courses

- Each course will have specific technological objectives agreed upon at the departmental level.
- Students will be encouraged to demonstrate technological competence in all areas in their capstone project
- Workshops will be scheduled to supplement areas

Capstone Project

- MA students will create a portfolio of their learning
- Students will be strongly encouraged to incorporate technology in their portfolio:
  - Digital video
  - On-line lesson plans/activities
  - Evidence that they can solve “wicked problems.”

Conclusion

- Since the technology is NOT static, pre-service teachers need to be trained as curriculum developers
- Teachers need to be able evaluate the situation they are in, and then judge when (and when not) to use instructional technology