in school and gender have the largest impact on prospective teachers' PK but regression analysis indicates that moderating factors for CK are different than those for PK. Those prospective teachers who hold a higher tolerance regarding bad exams show less achievement. During one year, the prospective teachers' self-evaluation of their educational skills has significantly increased even though their educational training is at the beginning.

Conclusions and Implications
The project is novel in its emphasis on trying to model and identify diagnostic competence and its development in prospective teachers. It can be expected that the model itself and results gained in the project contribute to research on teacher profession. Even though the project is explorative in its nature, it can reveal as to whether prospective teachers will establish competences we consider to be relevant, how long such a process takes (even though it might become shorter with better learning opportunities) and what kind of learning difficulties prospective teachers encounter.

References
Halloun, I., Hake, R. & Mosca E. (August, 1995). Revised version of the Force Concept Inventory. http://modeling.asu.edu/R&E/Research.html [01.08.2009]
Park, S., & Oliver, J. S. (2008). Revisiting the conceptualisation of Pedagogical Content Knowledge (PCK): PCK as a conceptual tool to understand teachers as professionals. Research of Science Education, 38, 261-284.Riese, J. (2009). Professionelles Wissen und professionelle Handlungskompetenz von (angehenden) Physiklehrkräften. [Professional competence of (prospective) teachers.] Berlin: Logos.
Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. Harvard Educational Review, 57(1), 1-22.

PAPER PRESENTATION
Surprising differences, hidden difficulties: findings from a teacher education pilot
Christopher Deneen, Hong Kong Institute of Education, Hong Kong; Ronnie Shroff, Hong Kong Institute of Education, Hong Kong

In the last several years, Hong Kong has undergone significant changes in quality assurance and enhancement at the tertiary level. Within this context, the Hong Kong Institute of Education, the region's largest teacher education provider has conducted an exploration of an outcome-based approach to course design, implementation and assessment within teacher education programs.

This paper reports findings from an institute-wide pilot study on OBL, implemented in 2009-2010. Pilot aims included trialing of teacher education course modifications across all undergraduate departments, analyzing and comparing students' and tutors' perceptions of the trial courses, identifying challenges within the trial process, generating evidence-based recommendations to the Institute for larger-scale implementation, and providing evidence-based findings towards to the larger teacher education community on issues of quality assurance and enhancement.

35 instructors and 672 students across 12 departments participated in the pilot. Survey, interview, focus group and related data were collected and analyzed using both quantitative analysis (item/factor scoring, ANOVA, factor analysis) and qualitative analysis (modified grounded theory). Findings include significant discrepancies between instructors' and students' perceptions of course design, assessment and implementation elements. Data analysis also revealed the significance of hidden barriers at multiple levels to change implementation. Theoretical and practical implications for institutions of teacher education contemplating or engaging in quality assurance and enhancement are discussed.

Context
In the last several years, Hong Kong has undergone significant changes in quality assurance and enhancement at the tertiary level (Kennedy, 2008; 2009). One manifestation of this has been the Hong Kong University Grants Committee's (UGC) suggestion that regional universities adopt an outcome-based learning (OBL) approach (Ewell, 2006). The Hong Kong Institute of Education is a tertiary institution serving over 7000 students. The principal focus of the Institute is teacher education. In 2007, the Institute began an exploration of OBL as a means to learner-centered quality assurance and enhancement. This paper reports on findings from the second institute-wide pilot study (Pilot II) on OBL, implemented in 2009-2010.

Aims
Five principal aims of Pilot II:

1. Within an OBL paradigm, enact a trial of teacher education course improvements across all undergraduate departments
2. Analyze and compare students' and instructors' perceptions of trial courses
3. Identify challenges within the trial process
4. Generate evidence-based recommendations to the Institute for larger scale implementation
5. Generate evidence-based findings that may inform the larger teacher education community on issues of quality assurance and enhancement

Methodology

Sample

35 instructors and 672 students participated across 12 departments.

Data collection

Two survey instruments were developed, an Instructor Survey Instrument and a Student Survey Instrument. Instruments were constructed from the same item matrix, which allowed for comparisons in response between instructors and students. Both instruments used a positively-loaded six-point scale (Lam & Klockars, 1982), and open-response items. Qualitative data was collected through instructor professional development sessions, instructor group sharing sessions, and student focus groups. Ethnographic interviewing techniques (Spradley, 1979) and Morgan's (1997) focus group protocols were utilized.

Data Analysis

Data was subjected to qualitative and quantitative analysis. Confirmatory Factor Analysis (CFA) was used on student survey data. CFA was not used with instructor survey data due to sample size restrictions. Analysis of mean, mode, standard deviation, was applied to both instructor and student survey data as well as ANOVA. Qualitative data was coded using a modified Grounded Theory technique (Strauss & Corbin, 1990).

Findings

Factor Analysis

CFA demonstrated the existence of five factors. Inter-correlation values and fit statistics indicated that respondents saw these factors as separate but related components of the pilot course:
1. Course Intended Learning Outcomes (CILOs)
2. Planning, design and alignment
3. Learning and teaching activities
4. Course assessment
5. Feasibility/Comparison

Findings from the fifth factor have been integrated into the discussion of the four course planning and implementation factors.

CILOs

Students evaluated this factor quite highly; CILO factor mean on the student survey was 4.31. Mean factor score on the instructor survey was 4.42, indicating strong parity between students' and instructors' evaluation of CILOs. This factor represents the area in which there was greatest course change as seen through analysis of professional development and sharing session data. Student-generated data reinforced the above findings; students perceived CILO-specific differences from other courses they had taken. Data indicated students placed a high value on outcomes that that were practice-oriented.

Planning, design and alignment

This factor received positive ratings from both students and instructors. However, there were concerns as to whether this factor was conceptualized similarly by students and instructors. CFA analysis of the student survey revealed a strong (.97) inter-correlation between this factor and the factor, learning and teaching activities of the course." Fit statistics revealed that despite this inter-correlation, a model with separate factors was more viable. One hypothesis to explain this finding is that students viewed course planning and design differently that instructors. Qualitative and quantitative data from instructors support the hypothesis.

Learning and teaching activities

This factor received highest overall evaluation by students. Factor mean was 4.33. Qualitative data supports this positive impression. However, student ratings negatively correlate to year in degree program. This finding held across the first four factors but it was most pronounced within learning and teaching. One hypothesis is that students'

evaluative criteria become more refined as they progress in the degree program. This interpretation is supported by related research into variance in SET scores by student characteristic (Sailor, Worthen, & Shin, 1997).

Course assessment
Students evaluated this factor category lowest out of all four impact categories. Factor mean was 4.08. This factor category yielded the greatest variance between student and instructor evaluation. Assessment factor mean on the tutor survey was 4.82. Larger-scale analysis of data suggests that classroom assessment was the area of least change within Pilot II. Findings suggest this lack of change was due to multiple factors including administrative barriers and participating instructors' response to change initiatives.
The subset of instructors and students who did make/experience changes in course assessments experienced significantly different results. Open-ended survey responses as well as interview data yielded strong positive response from both groups.

Theoretical and educational significance
Pilot II had strong interaction with unanticipated context issues, such as institutional policy and procedures. Impact was especially pronounced in assessment findings. Attention within the paper is given to understanding these interactions and how findings could be of significance to institutions engaged in quality assurance and enhancement.
Understanding the significant aggregate gap between instructor and student evaluations of classroom assessment has theoretical significance in relation to an emerging field of inquiry: stakeholder conceptions of assessment (Brown, 2006; 2009; 2010). The subset of courses where there were changes to assessment produced significantly different results. The paper discusses theoretical implications and practical possibilities for fostering change in course assessment and addressing challenges to implementation and adoption.
Findings elated to planning and teaching are of special significance to teacher education and the preparation of student teachers in the practice of course planning and teaching. Designing transparency into courses is discussed, both as a design element within teacher education courses and as a skill to be taught to student teachers.
The paper also discusses findings on teaching and learning in relation to strategizing student engagement according to progress within degree programs. Implications for teacher education program design are discussed, in terms of outcome development, course leveling, and course mapping/sequencing.

PAPER PRESENTATION
Personalisation in (Initial) Teacher Education
Christian Kraler, Teacher Education and School Research, Austria

Globalisation influences teacher education in Europe especially since the introduction of the Bologna process. This forces governments and universities to reform their teacher education programs. Competence-oriented programs imply the chance to plan initial teacher education outcome oriented and at the same time to increase the process specific flexibility for the course of education of individual students. Thus the idea is to develop a flexible curriculum matrix for a teacher education program with regard to the objective profession-specific course of education defined by competencies and the individual, personal course of education concerning choices, prevailing conditions and other biographical aspects.

In this talk the main findings of a study based on interviews with graduates of a competence oriented teacher education curriculum, a curriculum analysis and quantitative context data will be presented. The research question of the study is: "What are student based developmental tasks during a competence oriented teacher education program?" One result is that we do have two different only partially overlapping cultures of initial teacher education. Based on the concepts of developmental tasks and personalised learning we try to integrate the different approaches into the design of a flexible curricular matrix for initial teacher education with regard to the findings of the study and the existing literature.

One of the effects of the technology-based globalisation of markets is the current status of the individual. The logic behind this seems to be that everything is potentially available at any time for anybody. The responsibility is delegated to the individual. On the other hand, we find that institutions or governments control processes of all kinds increasingly by prescribing detailed structural and content-specific standards for the individual's actions. The same, at least in the German speaking countries, goes for educational systems and especially for teacher education. The modularisation of teacher education programs at universities initiated by the Bologna process (following the logic of global or continental markets) has led to more choice and flexibility for students. Yet on the curriculum level we now find a higher fragmentation of contents. This probably makes the essential profession-specific task of integrating the different elements of initial teacher education for both, the individual teacher student and teacher educators, more challenging than before.