

## Teaching strategies to elicit excellence in higher education

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Pedagogy for gifted and talented students in higher education is the main topic of this study. Teachers of educational programmes designed for talented or highly motivated students in higher education (here called honours programmes) are challenged to stimulate students to increase the quality of their academic achievements. However, systematically acquired knowledge on effective teaching strategies for motivated and talented students above the age of 18 is limited (Heller, Månks, Sternberg & Subotnik, 2000). The aim of this study is to augment the existing body of knowledge. Firstly to reflect on this knowledge from different perspectives, secondly by a mix-method research, analysing multi-institutional data collected in the United States and the Netherlands about teachers perception on teaching strategies for gifted and motivated students in higher education. The theoretical perspectives behind this study focus on (1) theories about giftedness, (2) motivational theories and (3) on studies on honours programmes.

Three concepts prove to be of importance when thinking about pedagogies for excellent students: shaping of a community, allowing for (academic) freedom and providing academic challenges. The empirical section of the study is concerned with the question: which strategies teachers say to employ within honours education and regular course in the light of these three concepts. These strategies highlight effective tactics that can be used to elicit excellence. This account addresses a gap in the emerging international body of knowledge on 'honours pedagogies'. Some aspects of the honours context seem quite different from standard teaching practices and necessitate special faculty development.

### Introduction

Pedagogy for gifted and talented students in higher education is the main topic of this study. Teachers of educational programmes designed for talented or highly motivated students in higher education (here called honours programmes) are challenged to stimulate gifted and motivated students to increase the quality of their academic achievements. However a systematically acquired knowledge about effective teaching strategies motivated and talented students above the age of 18 is limited (Heller, Månks, Sternberg & Subotnik, 2000). The aim of this study is to augment the existing body of knowledge. Firstly to reflect on this knowledge from different perspectives, secondly by a mix-method research, analysing multi-institutional data collected in the United States and the Netherlands about teachers perception on teaching strategies for gifted and motivated students in higher education. The theoretical perspectives behind this study focus on (1) theories about giftedness, (2) motivational theories and (3) on studies on honours programmes. Three concepts prove to be of importance when thinking about pedagogies for excellent students: shaping of a community, allowing for (academic) freedom and providing academic challenges. The empirical section of the study is concerned with the question which teaching strategies teacher say to employ within honours education and regular course in the light of these three concepts. This study reveals that teachers employ different teaching strategies for talented and motivated students compared to regular classes.

### Methodology

A systematically conducted literature study into research findings published in scientific journals included in the Social Science Citation Index (SSCI) revealed findings on effective teaching strategies for honours students. For further analysis of review studies published in the period 1959-2009 and individual reviews in the period 1999-2009 were included. These studies were complemented by publications on motivational theories and studies into honours programmes. The analysis of the publications revealed that teaching strategies emphasising community, freedom and academic competences highlight effective tactics that can be used to elicit excellence in higher education. Then, we devised a mix-method research design with a questionnaire and an interview protocol for focus groups. The questionnaire focused on specific teaching methods. Multi-institutional data were collected among faculty in the US and the Netherlands in 2006-2007. The analysis has been conducted on the basis of 442 completed questionnaires representing at least 84 higher education institutions. The respondents were experienced teachers across the US and the Netherlands. The questionnaire consisted of 20 multiple choice questions, 47 items with a 5 point Likert scale and three open questions. The focus group interview questions were conducted with teachers (N=48) at the end of each semester in a Dutch university with a relatively long tradition of honours programmes. The teachers were invited to comment on the extent to which strategies employed in honours programmes differ from those in regular educational programmes and whether faculty training was needed.

## Results

The search query into reviews from the period 1959-2009 yielded 28 publications covering one or more of the themes concerned with teaching strategies for honours programmes (cf. Fliegler & Bish, 1959; Rogers, 2007) revealing two themes: teaching strategies and teaching objectives. The search query into individual studies from 1999-2009 found 60 relevant publications. Frequently occurring teaching objectives were stimulation of creativity (Heller, 2007), leadership-building and fostering of student motivation (Schick & Phillipson, 2009). Although those findings give account of different age groups, they can provide insight into students in higher education (cf. Colangelo & Davis, 2003). The findings have been embedded in perspectives of motivational theories and honours studies. This resulted in three teaching strategies potentially relevant and effective for teaching excellent and talented students in higher education: building communities, balance between giving freedom and providing structure and developing academic competences. The results from the questionnaire and focus group suggest that there are similarities between honours and regular education. Nonetheless, significant differences remain. Teachers in honours programmes attach greater value to community building and indicate that they offer students more freedom in terms of planning and selecting of research topics. Interdisciplinarity and undergraduate research are of greater importance in honours programmes. Furthermore teachers give little reference to structural issues when teaching honours, while teachers in regular educational programmes often emphasize the need for a structure and clear explanations. Finally, little or no distinction can be made between regular and honours education in terms of the provision or application of academic knowledge. The results of this research indicate that greater tailoring of honours programs, within a strong framework of community, would be appropriate.

## Theoretical and educational significance of the research

Honours pedagogies within higher education have received little attention in previous research. The spread of programs designed for enhanced educational opportunities and outcomes makes further research critical. This research examines the strategies that teachers in higher education in the United States and the Netherlands reportedly employ in honours courses, in contrast to regular programs. These strategies highlight effective tactics that can be used to elicit excellence. This account addresses a gap in the emerging international body of knowledge on 'honours pedagogies'. Some aspects of the honours context seem quite different from standard teaching practices and necessitate special faculty development. The extent to which teachers in higher education are equipped to facilitate the creation of this kind of learning environment certainly requires further debate and study.

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