

*Paper*

## **Dealing with diversity – An honors program for students of teacher training starting in Muenster**

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### **1. Introduction**

Dealing with diversity is a main topic in teacher education in Germany. One aspect which is often inadequately represented is gifted education in this context. Often dealing with diversity starts with a negative point of view: which difficulties does the student have? Another point of access in classroom could be a focus on the individual potentials. The idea of giftedness and talents gives another point of view to this topic.

First a short overview about Giftedness and Learning is given. The leading idea of diversity in school is following. With the Challenge and Support Project, a best practice example is given for illustration.

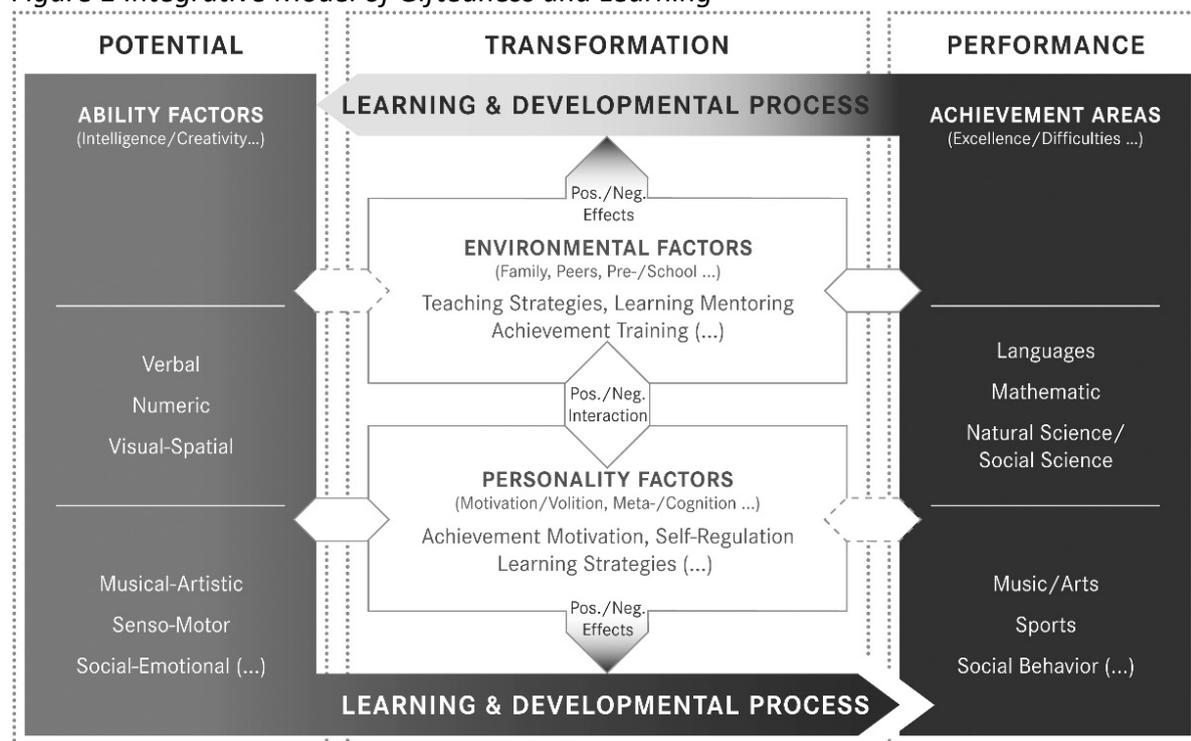
### **2. Giftedness and Learning – an Overview**

First individual giftedness and gifted learner promotion will be outlined. On the basis of the fundamental structure of the models by Heller et al. (2005) and Gagné (2005) the "Integrative Model of Giftedness and Learning" (Fischer, 2008) focuses on the key aspects of strategies of successful learning processes in personality factors, achievement motivation, self-regulation and learning strategies, which interact with the environmental factors (fig. 1). The environmental factors are mainly founded on the "Multifactor Model of Giftedness" (Mönks, 1992) and the factors of giftedness based on the "Theory of Multiple Intelligences" (Gardner, 1991).

The personality factors mentioned above may lead to successful learning processes as a condition for excellence in achievement, but it can also lead to unsuccessful learning processes as a cause of learning difficulties. The same applies to the environmental factors mentioned above so that the success or failure of individual learning processes also depends on the adaptation of teaching strategies, the efficiency of learning coaching and the intensity of achievement training (Whitmore, 1980). These inter- and intra-personal factors exercise a direct as well as an indirect influence on the individual learning and developmental process, caused by the individual interaction of environmental and personality factors (Fischer, 2006).

Various strategies of successful learning are also of great significance for the different models of self-regulated learning (SRL). Simons (1992) defines SRL as the extent to which a person is capable of managing and directing the learning process without support from other sources. According to Cronbach and Snow's (1997) "Aptitude Interaction Theory" (ATI) SRL models have proved to be adequate for the learning style of (highly) gifted children as regards their general cognitive, meta-cognitive and motivational-volitional characteristics of learning. (Highly) gifted underachievers, however, are frequently in need of being made familiar with strategies of autonomous learning via direct instruction so that they can then profit from useful forms of SRL, such as self-directed and project work (Griggs, 1984).

*Figure 1 Integrative Model of Giftedness and Learning*



*Source: Fischer, 2008*

Following Boekaerts' (1999) "Three-layered model of SRL" the strategies of SRL may be differentiated as follows: 1) cognitive strategies of information processing (e.g., reading and writing strategies), 2) metacognitive strategies of self-regulation (e.g., time management, self-control) and 3) motivational- volitional strategies of achievement motivation (e.g., goal development, interest orientation). Similarly Weinstein and Meyer (1986) make a difference between primary cognitive strategies (e.g., repetition, elaboration and organizational strategies), metacognitive control strategies and motivational-emotional support strategies. In this model learning strategies comprise all forms of internal and external behavior which assist the learners in trying to influence the different aspects of their learning (motivation, attention, gathering and processing information; Weinstein & Meyer, 1986). The basis of these measures is the principle of individual promotion, i.e., to adapt the challenge and support offers of the environment to the children's cognitive, socio-emotional and psycho-motoric challenge and support needs (Fischer, 2008).

### 3. Inside school: Limits & possibilities

Diversity in this school's context means the appreciation of social characteristics in groups or in persons. Taking these varieties positive could evolve personal developments as well as those of learning groups (Walgenbach, 2017).

Nevertheless looking in school there are some increasing challenges for teachers dealing with diversity. For example, there are more students coming to school as refugees. This means that there are more problems with language or maybe handling traumata or comparative challenges in classroom than before (Adam und Inal, 2013). Another point is the growing number of pupils getting included from the special-needs-school into regular schools (Klemm, 2015). One political reaction is the expansion of schoolwide full-time school offers (StEG, 2016). This should help to include all students in one system not just pointing out one category like disabilities vs. abilities but teach them in their holism.

This means that students with difficulties as well as students with special gifts and talents should be the aim of school changes towards individual support. Studies revealed to this topic show that there is a lack of support for gifted and high achieving pupils in German schools (for example Bos et al., 2012; Wendt et al., 2013; Klieme et al., 2010; Prenzel et al., 2013; Fischer et al., 2014).

### 4. Best Practice: The Challenge and Support Project

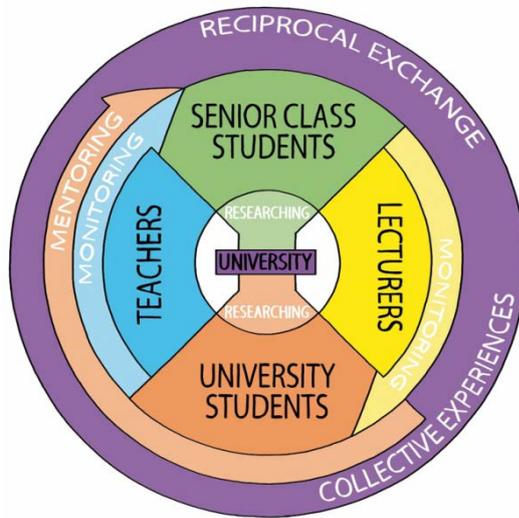
The „Challenge and Support Project“ (Forder-Förder-Projekt - FFP) in the Revolving Door Model (FFP-Drehtür) tries to fill this gap and therefore, in particular aims at (highly) gifted children. In primary school (years 3 & 4) as well as in secondary school (years 5 & 6 (FFP-D) as well as 8 & 9 (FFP-Advanced)) the gifted pupils have the possibility to attend to the Challenge and Support Project. In both FFP versions (as advanced and as a revolving door model) a small group of six pupils attend a special weekly double period (90 minutes) instead of their regular lessons, tutored by three university students. The FFP is divided into four learning strategy oriented phases: 1) choice of topics (focus on motivational strategies), 2) information-search (focus on reading strategies), 3) project documentation (focus on writing strategies), 4) project documentation (focus on presentation strategies).

The project begins with a phase of support diagnostics and ends with a phase of project evaluation to which parents and teachers also contribute special information. In all phases learning diaries with a focus on self-management strategies are used. The pupils can choose an own topic, working it out into a thesis and present their results. Their choice is not only depending on their personal interest but also on the project type and age. Due to its advanced version, the pupils in the FFP-A focus even more on a research process. Based on the individual abilities, interests and learning competences, special strategies using a scientific methodology to bear on an individual problem will be taught in the FFP-A project. These strategies include the basic spectrum of scientific working and research methods, i.e. the development of a question compiling literature and planning, realization, evaluation, documentation and presentation of one's research results.

The FFP is not only focusing on pupils. During the regular FFP the university students showed a huge interest and motivation to enlarge their activities beyond the horizon of their regular academic program. Therefore, in September 2016 a subsequent program started which tries to cover those demands. The FFP Plus (Research-Based Learning – Research on Learning) is

designed as an Honors Program which enables teacher training students to foster individual needs of gifted and talented pupils in a special enrichment setting.

Figure 2: Structure of the FFP-Plus



The FFP-Plus is designed as an enrichment project for highly gifted senior class students as well as for high talented and motivated university students. Both target groups get the chance to do active research on individual learning processes.

It focusses on an additional group of pupils at the age of 16 to 18 years who are close to reaching the permission to enter higher education.

Based on a research question, for example “what happens in the brain while learning?”, they build different research groups on the topic of learning, working together on a thesis regarding their specific research question. Unlike the regular FFP the university students do not only mentor the pupils but also get the chance to do active research on the topic of learning. Pupils and students learn together, expanding their knowledge and research skills equally. Instead of organizing the sessions at schools, the lessons of the FFP Plus will take place in the facilities of the university. On a monthly basis it is organized in a special combination of seminar and lecture, where different experts are invited to lecture about topics of learning (for example differences in learning styles) and the pupils work with the students on their research topics. This is one of the main contrasts to the already existing program in which the pupils are free to choose a topic of interest in any field they want and come together in their own schools. Depending on their topic some of the pupils sometimes choose to interview experts (for example interviewing a biology professor on terms of bacteria), but they are not working together as groups with their mentoring teacher trainings students.

## References

Adam, H. & Inal, S. (2013). *Pädagogische Arbeit mit Migranten- und Flüchtlingskindern. Unterrichtsmodule und psychologische Grundlagen*. Weinheim: Beltz.

Boekaerts, M. (1999). Self-regulated learning: Where we are today. *International Journal of Educational Research*, 31, 445-475.

- Bos, W.; Wendt, H., Ünlü, A., Valtin, R., Euen, B., Kasper, D. & Tarelli, I. (2012). Leistungsprofile von Viertklässlerinnen und Viertklässlern in Deutschland. In: W. Bos, H. Wendt, O. Köller & C. Selzer (Hsrg.). *TIMSS 2011 - Mathematische und naturwissenschaftliche Kompetenzen von Grundschulkindern in Deutschland im internationalen Vergleich*. (pp. 269 - 301). Münster: Waxmann.
- Cronbach L.J. & Snow, R.E. (1997). *Aptitudes and instructional methods: A handbook for research on interactions*. New York: Irvington.
- Fischer, C., Rott, D. & Veber, M. (2014). Diversität von Schüler/-innen als mögliche Ressource für individuelles und wechselseitiges Lernen im Unterricht. *Lehren & Lernen. Zeitschrift für Schule und Innovation aus Baden-Württemberg* 40, 8/9: 22-28.
- Fischer, C.; Mönks, F. & Westphal, U. (Eds.) (2008). *Individuelle Förderung: Begabungen entfalten - Persönlichkeit entwickeln. Allgemeine Förder- und Förderkonzepte*. (1. Aufl). Lit Verlag.
- Fischer, C. & Ludwig, H. (Eds.)(2006). *Begabtenförderung als Aufgabe und Herausforderung für die Pädagogik*. Münster: Aschendorff-Verlag.
- Gagné, F. (2005). From gifts to talents: The DMGT as a developmental model. In: Sternberg, R.J. & Davidson, J.E. (Eds.), *Conceptions of giftedness* (pp. 98-119). New York: Gibbs.
- Griggs, S.A. (1984). Counseling the Gifted and Talented based on learning styles. *Exceptional Children*, 50 (5), 429-432.
- Heller, K.A., Perleth, C., & Lim, T.K. (2005). The Munich model of giftedness designed to identify and promote gifted students. In: Sternberg, R.J. & Davidson, J.E. (Eds.), *Conceptions of giftedness* (pp. 147-170). New York: Gibbs.
- Klemm, K. (2015). *Inklusion in Deutschland. Daten und Fakten*. Gütersloh. Available online: [https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/Studie\\_IB\\_Klemm-Studie\\_Inklusion\\_2015.pdf](https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/Studie_IB_Klemm-Studie_Inklusion_2015.pdf) (accessed 24/1/2017).
- Klieme, E., Artelt, C., Hartig, J., Jude, N., Köller, O., Prenzel, M., Schneider, W. & Stanat, P. (Eds.). (2010). *PISA 2009*. Münster: Waxmann.
- Mönks, F.J. (1992). Ein interaktionales Modell der Hochbegabung. In: Hany, E.A. & Nickel, H., *Begabung und Hochbegabung. Theoretische Konzepte–Empirische Befunde–Praktische Konsequenzen* (pp. 17-22). Bern: Huber
- Prenzel, M., Sälzer, Ch., Klieme, E. & Köller, O. (Eds.) (2013). *PISA 2012: Fortschritte und Herausforderungen in Deutschland*. Münster: Waxmann.

Simons, P. R. J. (1992). Lernen selbständig zu lernen - ein Rahmenmodell. In H. Mandl & H. F. Friedrich (Eds.), *Lern- und Denkstrategien. Analyse und Intervention* (pp. 251-264). Göttingen: Hogrefe.

StEG (Das Konsortium der Studie zur Entwicklung von Ganztagschulen) (2016). *Ganztagschule: Bildungsqualität und Wirkungen außerunterrichtlicher Angebote. Ergebnisse der Studie zur Entwicklung von Ganztagschulen 2012 –2015*. Available online: [http://projekt-steg.de/sites/default/files/StEG\\_Brosch\\_FINAL.pdf](http://projekt-steg.de/sites/default/files/StEG_Brosch_FINAL.pdf) (accessed 24/1/2017)

Walgenbach, K. (2017). *Heterogenität - Intersektionalität - Diversity in der Erziehungswissenschaft*. 2., durchgesehene Auflage. Leverkusen: UTB.

Wendt, H., Willems, A.S., Tarelli, I., Euen, B. & Bos, W. (2013). Ausreichend geförderte Talente? - Zu den deutschen Ergebnissen von leistungsstarken Viertklässlerinnen und Viertklässlern in IGLU 2011 und TIMSS 2011. In: Fischer, C. (Ed.), *Schule und Unterricht adaptiv gestalten. Fördermöglichkeiten für benachteiligte Kinder und Jugendliche*. (pp. 23-34). Münster: Waxmann.

Weinstein, C. E. & Mayer, R. E. (1986). The teaching of learning strategies. In: Wittrock, M. C. (Ed.), *Handbook of research in teaching* (pp. 215-327). New York: Macmillan.

Whitmore, J.R. (1980). *Giftedness, Conflict and Underachievement*. Boston: Allyn & Bacon.