ERASMUS UNIVERSITEIT ROTTERDAM

Erasmus University Rotterdam, the Netherlands
CSC PhD 2015 Project Description

School/Department:	Faculty of Social Sciences: Department of Psychology in collaboration with Erasmus Medical Center: IVO Addiction Research Institute
Project Title:	Excessive video gaming: harmful for some, beneficial for others.
Abstract:	**Project** Video gaming is a major concern in Europe as well as China. However, frequent or even excessive video gaming can both lead to positive and negative effects. Some heavy gamers start showing addictive symptoms and decreased psychosocial wellbeing, while others do not show these problems and may actually learn from games; for example, they may enhance their working memory capability, or social, managerial and strategic skills. The current project seeks to find out how excessive video gaming leads to mostly negative effects in some and mainly positive effects in others. It will take into account different types of games (e.g. wangluo youxi, danji youxi, and dianzi jingji). This will be explored with the use of existing datasets of large survey studies (a Dutch one, and a European-wide one), and a new survey with a cross-cultural component – China vs. Western Europe (Netherlands or UK) as to find out whether cultural differences moderate positive and negative effects. In the second part of the project, experimental lab studies will be conducted in the Netherlands to causally test predictions stemming from the surveys. An important question here is: is game addiction related to deficiencies in the brain areas known to be involved in established addictions, i.e. in areas involved in reward-processing and behavioral inhibition. We will examine this in laboratory studies involving behavioral and EEG measures. **Research Team** The supervisory team consists of experienced addiction researchers, both in experimental neurocognitive research as well as psychological & epidemiological survey research. They have a broad expertise in all kinds of addictions, and in video game addiction in particular. Altogether, they have supervised over 30 PhD students in addiction research.
Requirements of candidate:	Master degree: Yes) Background: Psychology or another relevant field in behavioral science, or medicine. No EEG experience required.

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	IELTS Grade: 7.0 *(minimal 6.0 per component)* *or* TOEFL: *100 (minimal 20 per component)*
Supervisor information:	Prof. dr. Ingmar Franken (dept. of Psychology) Prof. dr. Dike van de Mheen (IVO Addiction Research Institute) Dr. Tim Schoenmakers (IVO Addiction Research Institute)) franken@fsw.eur.nl www.eur.nl/fsw/psychologie/research/cognitiveaspectsofpsychopathology www.linkedin.com/pub/dike-van-de-mheen/14/156/255 www.ivo.nl **Ingmar H.A. Franken** holds the position of chair of Clinical Psychology at the Erasmus University Rotterdam, the Netherlands. His primary appointment is in the faculty of Social Science, Institute of psychology, where he teaches courses in clinical psychology, and particularly in addiction. His secondary appointment is in the faculty of Medicine, department of child and adolescent psychiatry where he is involved in studies on substance use behavior in adolescents. Dr. Franken has been conducting behavioral and neuroimaging studies concerning neurocognitive aspects of addictive behaviors, including behavioral addictions. He published numbers of papers on neuroimaging in substance dependent patient groups. Recently, he is focusing on longitudinal studies and population neuroscience, and investigating the role of neurocognitive mechanisms in adolescents in order to discern causes and consequences of substance use. **Dike van de Mheen** studied Health Sciences until 1987. Here PhD thesis about “Socio-economic health differences during the life-course” was successfully defended in 1998. From 1987-1988 she worked as researcher with the Rotterdam Area Health Authority. This was followed by an appointment as researcher and assistant professor at the Erasmus University Rotterdam (Department of Public Health) from 1988 until 1999. During 1998 and 1999 she was senior adviser at the Rotterdam Area Health Authority. From 1999 to date she is Director of Research and Education at the IVO Addiction Research Institute Rotterdam. She has extended experience in research (both quantitative and qualitative) on drug and alcohol related issues. Since April 2007 she is professor “Addiction Research” at the Erasmus University in Rotterdam. Starting January 2012 she is also professor “Care and prevention of risky behaviour and addiction” at Maastricht University.

	Tim Schoenmakers is research manager at the IVO Addiction Research Institute and leads research projects on game addiction and internet addiction, as well as neurocognitive research projects. He finished his PhD in 2008 in experimental psychopathology, with a focus on neurocognitive predicters of susbstance abuse and addiction. **Relevant publications Ingmar Franken (selection):** Boog, M., Höppener, P., Van de Wetering, B. J. M., Goudriaan, A. E., Boog, M. C., & Franken, I. H. A. (in press). Cognitive inflexibility in gamblers is primarily present in reward related decision-making. Frontiers in human neuroscience. Euser, A. S., Evans, B. E., Greaves-Lord, K., Huizink, A. C., & Franken, I. H. A. (2013). Parental rearing behavior prospectively predicts adolescents' risky decision-making and feedback-related electrical brain activity. Developmental Science, 16(3), 409-427. Littel, M., van den Berg, I., Luijten, M., van Rooij, A. J., Keemink, L., & Franken, I. H. A. (2012). Error-processing and response inhibition in excessive computer game players: an ERP study. Addiction Biology(5), 934-947. Marhe, R., Luijten, M., & Franken, I. H. A. (2014). The clinical relevance of neurocognitive measures in addiction. Frontiers in Psychiatry, 4. doi: 10.3389/fpsyt.2013.00185 Marhe, R., Luijten, M., van de Wetering, B. J., Smits, M., & Franken, I. H. A. (2013). Individual differences in anterior cingulate activation associated with attentional bias predict cocaine use after treatment. Neuropsychopharmacology, 38(6), 1085-1093. doi: 10.1038/npp.2013.7 Marhe, R., van de Wetering, B. J. M., & Franken, I. H. A. (2013). Error-related brain activity predicts cocaine use after treatment at 3-month follow-up. Biological Psychiatry, 73(8), 782-788. doi: Doi 10.1016/J.Biopsych.2012.12.016 **Relevant publications Dike van de Mheen (selection):** Kuss AJ, Schorter GW, Rooij AJ van, Mheen D van de, Griffiths MD. The Internet addiction components model and personality: Establishing construct validity via a nomological network. Computers in Human Behavior 2014;99:312-321 Van Rooij, A. J., Kuss, D. J., Griffiths, M. D., Shorter, G. W., Schoenmakers, T. M., & Van de Mheen, D. (2014). The (Co-)

Occurrence of Problematic Video Gaming, Substance Use, and Psychosocial Problems in Adolescents. Journal of Behavioral Addictions.

Van Rooij, A. J., Schoenmakers, T. M., Van den Eijnden, R. J. J. M., & van De Mheen, D. (2010). Compulsive Internet use: the role of online gaming and other internet applications. The Journal of Adolescent Health, 47(1), 51–57. doi:10.1016/j.jadohealth.2009.12.021

Van Rooij, A. J., Schoenmakers, T. M., Van den Eijnden, R. J. J. M., Vermulst, A. A., & Mheen, D. Van De. (2012). Video Game Addiction Test: Validity and Psychometric Characteristics. Cyberpsychology, Behavior and Social Networking, 15(9), 507–511. doi:10.1089/cyber.2012.0007

Van Rooij, A. J., Schoenmakers, T. M., Van den Eijnden, R. J. J. M., Vermulst, A. A., & Van de Mheen, D. (2014). Friendship quality matters for multiplayer gamers. The role of online and real-life friendship quality in the relationship between game addiction and psychological well-being in a sample of adolescent online gamers.

Van Rooij, A. J., Schoenmakers, T. M., Vermulst, A. A., Van Den Eijnden, R. J. J. M., & Van De Mheen, D. (2010). Online video game addiction: identification of addicted adolescent gamers. Addiction, 106(1), 205–212. doi:10.1111/j.1360-0443.2010.03104.x

Van Rooij, A. J., Zinn, M. F., Schoenmakers, T. M., & Van De Mheen, D. (2012). Treating internet addiction with cognitive-behavioral therapy: A thematic analysis of the experiences of therapists. Journal of Mental Health & Addiction. doi:10.1007/s11469-010-9295-0

Relevant publications Tim Schoenmakers (selection)

Field, M., Schoenmakers, T. M., & Wiers, R. W. (2008). Cognitive processes in alcohol binges: A review and research agenda. Current Drug Abuse Reviews, 1, 263–279.

Hellman, M., Schoenmakers, T. M., Nordstrom, B. R., & Van Holst, R. J. (2013). Is there such a thing as online video game addiction? A cross-disciplinary review. Addiction Research & Theory, 21(2), 102–112. doi:10.3109/16066359.2012.693222

Kuss, D. J., Shorter, G. W., Van Rooij, A. J., Griffiths, M. D., & Schoenmakers, T. M. (2013). Assessing Internet addiction using the parsimonious Internet addiction components model - A preliminary study. International Journal of Mental Health and Addiction, online.

	doi:10.1007/s11469-013-9459-9 Schoenmakers, T. M., de Bruin, M., Lux, I. F. M., Goertz, A. G., Van Kerkhof, D. H. A. T., & Wiers, R. W. (2010). Clinical effectiveness of attentional bias modification training in abstinent alcoholic patients. Drug and Alcohol Dependence, 109(1-3), 30–36. doi:10.1016/j.drugalcdep.2009.11.022 Snelleman, M., Schoenmakers, T. M., & Van de Mheen, D. (2014). The relationship between perceived stress and cue sensitivity for alcohol. Addictive Behaviors, 39, 1884–1889. Teunissen, H. A., Spijkerman, R., Schoenmakers, T. M., Vohs, K. D., & Engels, R. C. M. E. (2012). The Effect of Self-Control on Attentional Bias for Alcohol Cues in Male Heavy Drinkers. Journal of Applied Social Psychology, 42(3), 776–792. doi:10.1111/j.1559-1816.2011.00800.x Tsitsika, A. K., Janikian, M., Schoenmakers, T. M., Tzavela, E. C., Ólafsson, K., Wójcik, S., … the EU NET ADB Consortium. (2014). Internet addictive behavior in adolescence: a cross-sectional study in seven European countries. Cyberpsychology, Behavior and Social Networking, 17(8), 528–535.