

Developing support methodologies for the social integration of children with autism spectrum disorder and their families

HAS-ELTE 'Autism in Education' Research Group (MASZK)

ANNUAL ACCOMPLISHMENT REPORT FOR THE PERIOD 1 September 2018 – 31 August 2019

A translation of the corresponding document in Hungarian, with minor adjustments in format.

25 October 2019

1) Compliance with the research tasks detailed in the Work Plan

Our research group has successfully elaborated its educational-methodological research concept and carried out its research-and-development activities according to its Work Plan in the period of 1 September 2016 – 31 August 2019 (from the beginning of this research project up to the end of the current report period).

Our educational-methodological framework has consisted of systematic exploratory empirical studies (I, II), and, based partly on the results of these, developing and systematically evaluating a complex pedagogical programme for enhancing educational and social inclusion (III).

I-II, from 2016 to 2019. We implemented a quantitative, multi-variate representative survey (I), and, based on its results, a qualitative study using parental interviews as means of data collecting (II). The main aim of these studies has been an exploration of the quality of life and psychological well-being of parents of children and adults with autism, in the context of various institutional services. The empirical data collecting phase has been successfully completed in both studies. In the academic year reported here we were engaged in analysing the data from the large-sample quantitative study, in developing the computer algorithms for pre-processing the interview texts for coding, as well as in developing the coding schemes for the first-level coding for the forthcoming thematic content analyses of the interviews. First trial codings have been completed and inter-rater agreements have been calculated. Upon their results, we are now refining the coding schemes for another sweep of trial codings and for finalising the code schemes for the forthcoming coding of the total data set.

III, 2017-2019. We developed a novel pedagogical programme for supporting the school integration of pupils with autism spectrum condition in mainstream schools, the 'Star-bus' Inclusion Intervention Programme (SIIP). Beyond elaborating the programme, we developed the methodology of the effectiveness and applicability study. In the research period reported here, we completed the implementation of the programme and the data collecting phase of the effectiveness and applicability study.

In the table below, we indicate the specific key items of our annual Research Plan for the period reported here, summarise our corresponding activities and achievements, and explain any significant deviation from the work plan.

	Items of our Work Plan for 2018-2019	Research group activities and achievements	Deviations from the Work Plan and their rationale
1 September 2018 – 30 September 2018	Applying for an ethical approval for the effectiveness and applicability study of the SIIP programme.	We received the ethical approval; its number is: KEB/2018/010.	None.
1 October 2018 – 31 December 2018	Reviewing and correcting the developed activity collection (of the SIIP programme).	Completed.	None.
1 October 2018 – 31 December 2018	Contacting the schools in order to involve them in the study sample; collecting necessary permissions and consents; preparing and signing cooperation agreements.	Completed. Nevertheless, we experienced more difficulties than previously expected, in involving schools into the study. Therefore, we had to contact significantly more schools than planned, and, yet, the final number of partner schools remained somewhat below the planned. <i>See the next column for more details.</i>	We experienced significant difficulties in recruitment. In case of each class, we needed consents from the director of the school, the head teacher of the class, and the parents of all the pupils in the class. Although most candidate teachers and parents were highly motivated to participate, just one party in a class refusing to consent obliged us to reject the class from the sample. <i>*See specific numbers on the recruitment process in the footnote.</i>
	Developing the remaining elements of the programme, finalising them upon the pilot results: elaborating the intervention methodology on the level of a detailed manual; developing teacher training manual and learning contents; producing the necessary tools and pictures.	The programme has been fully elaborated. The collection of activities, the manual and its appendices (teachers' toolset), and the teacher training materials have been completed. More elements have been prepared than planned. <i>See the next column for more details.</i>	'Extra' elements in the programme material (not included in the original plan): <ul style="list-style-type: none"> • video messages from children with autism and their peers; • video materials on bullying; • some appendices in digital format, too; • the training video <i>ASD Advices for Primary School Teaching Staff</i> of the ASD National Development Team has been translated and included (with the kind permission of the ASDinfoWales). Furthermore, novel questionnaire tools for measuring autism-knowledge (in both teacher and pupil versions) were developed by us, for use in the effectiveness and applicability study.

	Items of our Work Plan for 2018-2019	Research group activities and achievements	Deviations from the Work Plan and their rationale
	Setting up the teacher team. Detailed planning of the measurements and other work processes.	The teacher team was completed. (Due to the unexpected difficulties in recruiting, it took a month longer than planned, but this did not cause any delay in other research activities.) Detailed planning was fully completed in time.	None.
1 January 2019 – 15 February 2019	Trainings for teaching staff, country-wide. A more intensive teacher training in Budapest.	All trainings were completed in the local schools, in time. The more intensive, 2-day training took place in Budapest, on 1 and 2 February 2019.	Second- and third-grade classes were recruited only, taking the advantage of the small age range. The final protocol of the effectiveness and applicability study contains more elements than planned – e.g., data collecting on pupils' quality of life.
	Initial (pre-test) measurements of the effectiveness and applicability study.	Pre-test measurements were completed in the 14 participating classes (8 test and 6 control classes). <i>(See above the reasons for the reduced sample size.)</i>	Socio-metric questionnaire was administered off-line – with respect to the technological limitations of the participating schools and the necessary robustness of the data collecting process.
15 February 2019 – 31 May 2019	Test phase: the implementation of the SIIP programme (intervention) in the participating schools (classes). Recording data in the study database. Professional supervision for the participating teachers.	The programme was implemented in all the participating classes.	Some of the teachers asked, occasionally, for supervision, which was provided by our team. We decided to visit each participating class two times when they were engaged in programme activities.
1 May 2019 – 15 June 2019	Post-test measurements of the effectiveness and applicability study: 10 test and 10 control classes, 2nd, 3rd and 4th-grade; teacher, parental, and pupil questionnaires and interviews administered.	Post-test measurements were completed in the 14 participating classes (8 test and 6 control classes).	The final protocol of the effectiveness and applicability study contains more elements than planned: <ul style="list-style-type: none"> • teachers' feedback form on applicability; • pupils' feedback form on the activities; • pupils' strategies questionnaire.

	Items of our Work Plan for 2018-2019	Research group activities and achievements	Deviations from the Work Plan and their rationale
15 June 2019 – 15 August 2019	Data recording, first analyses, preparations for publications.	Completed.	Beyond these planned activities, we organised a closing event for the participating teachers where we provided detailed feedback about the programme implementation, in groups and also individually.

** In the process of the recruitment, we sent out 2018 invitation e-mails, as well as placed calls on our website and the Facebook. We also collected information, by the aid of the Ombudsman for the Education Rights and the president of the Education Office, on those schools in Budapest which had pupils with autism in their 2nd or 3rd grade classes (a total of 77 schools). From among these, we contacted 38 schools that met our recruitment criteria. Further 17 schools were contacted and informed in the countryside. In total, there were 29 schools with which we went into very detailed negotiations about their participation, involving teachers, pupils, and parents. Finally, 12 schools did not undertake the participation, and further 3 schools quitted after their random test/control assignment. Therefore, 14 schools/classes comprised our sample, 8 serving as test, 6 as control.*

2) Disseminating our results in the broader professional public and incorporating them into higher education programmes (teacher trainings, further education and doctoral programmes)

According to our Work Plan, we intend to publish our key results in the forthcoming closing research year (the 2019-2020 academic year), primarily in the form of journal papers in peer-reviewed international journals.

Nevertheless, in the research year reported here, we have already begun the publication and dissemination work. Ten relevant book chapters and two relevant papers in peer-reviewed journals were published by our research group. We made 10 conference presentations (partly at domestic, partly at international conferences), and we ourselves organised one conference, focussing on our research project, with the participation of Prof Karen Guldberg, as invited speaker.

We are keen on disseminating our approach and results in the wider public. Accordingly, we presented our work at such 12 public events (cultural events, parent-professional events, etc), and we integrated our approach and results into 11 courses on the BA and MA levels, reaching approximately 850 higher education students in teacher training and psychology programmes, partly in English. In the academic year of 2018-2019, 8 BA /MA theses and Researching Students papers were successfully submitted, focusing on various aspects of our research. Ms Vivien Németh, a member of our research group was admitted to a doctoral school in education and was granted a New National Excellence Programme grant for the current academic year.

Our network of researching and practicing teachers has grown significantly; we work in close cooperation with 25 teachers. The SIIP programme reached close to 300 pupils in schools from Budapest to small settlements in disadvantaged regions of the countryside. From among the members of our teacher network, two colleagues applied for higher teacher qualification in the academic year of 2018-19 (Boróka Csaba & Gabriella Magyar).

Our distinguished partner, the Hungarian Autistic Society (AOSZ) has supported our work in its all phases and has utilised our (preliminary) results in shaping its policies and making decisions. Our cooperation is very close in our joint research-and-development project, the *Digital Autonomy-Support in the Autism Spectrum* (briefly: DATA) Project. The DATA Project has many synergic elements with the present project, both in contents and in methodologies (such as evidence-based developments and practices, partly in institutional (school) contexts). (More information on the project in English will soon be available at the project website: <http://data.aosz.hu/english-summary/>)

In the academic year reported on now, our previously existing international links seem to have strengthened, too. The main focus of our cooperation with Prof. Karen Guldberg and the Autism Centre for Education and Research at the School of Education of the University of Birmingham, led by her, is the educational aspects of our research, including the SIIP programme. In our collaboration with Prof. Valsamma Eapen and the Academic Unit of Infant, Child, Adolescent Psychiatry South West Sydney (AUCS) at the University of New South Wales, Australia, the focus is on the quality of life aspects of our research, and a plan of a joint publication has already taken shape.

(3) Our three most important achievements from the third year of the Content-Pedagogy Research Programme

In the context of our whole four-year research programme, our most significant and content-pedagogically most relevant outcome is the Star-Bus Inclusion Intervention Programme (the SIIP). The main focus of our research activities was on this programme in the 2018-2019 academic year; and, more specifically, on its development and its evaluation study. Therefore, our most important three achievements in the report period are connected to the SIIP programme.

(1) We have developed a complex pedagogical programme (method) for supporting the school integration of pupils with autism

The programme was elaborated on the basis of a very extensive and systematic review of the relevant literature, and it includes evidence-based elements, only, which fit well to our current knowledge on autism and the current standards of pedagogy. The developed programme kit has several innovative features, it targets the building up and enhancing pupils' awareness about autism-relevant behaviours, skills, motivations, as well as their cooperation skills, their acceptance of human variability as being natural, and their openness to taking social responsibility.

One of the innovative features of the SIIP is that its target group is unusually broad: beyond pupils with autism and their peers, it aims to enhance autism-knowledge also in the community of the teachers of the school, intends to enhance their relevant explicit and implicit knowledge, expecting that this will lead to beneficial 'secondary' effects on the entire community of the school, and will generalise beyond autism to the acceptance of other human differences, too.

A detailed protocol and a tool-kit have been elaborated as parts of the programme manual.

The SIIP programme is unique in Hungary, and, to some extent, internationally, as a programme and tool-kit for forming autism-knowledge of peers of pupils with autism learning in a mainstream educational environment. In the case the final results of our validation study demonstrate the effectiveness and applicability of the programme, we intend to consider adapting it to other languages and school environments, too. Recently, there has been a considerable interest in the future final version of the programme among parents and teachers.

(2) We developed the protocol of the effectiveness and applicability study of the pedagogical programme

Our study protocol is based on a controlled design comparing pre-test and post-test data in order to detect changes in the quality of life of the pupils, in their position in the class community network, in their knowledge about autism, in their attitudes towards autism, in the occurrence of bullying in the community, all in relation to the SIIP intervention. This study design is unique in the field, in some of its aspects.

(3) The evaluation study of the programme has been completed, with promising first results

The evaluation (effectiveness and applicability) study of the programme took place with the participation of 14 primary schools in Hungary. Closely 300 teachers took part in our introductory trainings in supporting children with autism in the school. Nineteen teachers and 282 pupils (14 of them with autism) participated in the test implementation of the programme. Pre-test and post-test data collecting periods each lasted for a month and happened according to the same protocol in all participating schools (both test and control schools/classes). During the intervention period, further documentations by teachers, expert observations and feedback from pupils complemented the more systematic data of the study. The first results seem promising: applicability data suggest that the programme is well-calibrated, the autism-related knowledge of the pupils grew significantly, and their repertoire of cooperation skills has grown. There seems to have happened progress in the school-related aspect of the quality of life of the pupils having participated in the programme. Further and more thorough analyses are going on, at current.

Please, see the English pages of our website for more details on our research group, our publications and public appearances, at <http://maszk.elte.hu/index.php/en/>.

*