



Scholion at Ten: An Evaluation Study



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Executive Summary

Scholion* is an Interdisciplinary Research Center in the Humanities and Jewish Studies that operates at the Hebrew University of Jerusalem as of 2002. This Center is the object of the present evaluation report. Scholion provides an academic haven for elite research groups, each of which is composed of four faculty members and four doctoral students. Each group works jointly for a duration of three years. Additionally, Scholion provides postdoctoral fellowships for a select group of scholars, titled 'Mandel Scholars'. Among its stated objectives, Scholion aims to promote interdisciplinary research in the humanities; to serve as a scholastic greenhouse for young scholars; to promote mutual peer learning and the sharing of knowledge while encouraging scholars to make their office their primary workspace; and to promote cross-generational collaboration among researchers of the Hebrew University of Jerusalem. The present report focuses on the effectiveness of Scholion in attaining those aims.

In winter 2014 we conducted in-depth, semi-structured, interviews with fourteen faculty members, ten doctoral students, and six postdoctoral scholars, counting a total of thirty. All the interviewees were Scholion members between the years 2002-2013. Additionally, we collected updated curriculum vitals from twenty-five faculty members, thirty-one doctoral students, and seventeen postdoctoral scholars. We analyzed scholarly productivity using the Coolcite CV analyzer, forming the database for the following quantitative analyses. Given that Scholion has a hundred alumni, the above response rates are highly satisfying for both the qualitative and quantitative parts of this study.

Scholion is made up of top, highly prolific humanities scholars. The quantitative analyses indeed describe a strong academic group, dedicated to research and to the spread of knowledge by publishing.

In 2014 the name was changed to Mandel Scholion. This report uses the name as it was in theperiod studied.

Moreover, this group gets stronger along the years, with young scholars pushing ahead, presenting constant growth in most parameters — total number of scientific publications, number of books published and grants gained. Importantly, faculty members seem also to be keen to tutor the next generation of researchers. The qualitative data — which comprise the bulk of this report — help explaining the growing productivity of Scholion members along the years and the effectiveness of this unique academic framework.

During qualitative data analyses we came up with the following themes: the effect of time; knowledge sharing; cross-generational learning; and socialization to the academic world. It emerges that the provision of three years for serious academic work provides scholars with ample time for delving into personal research and group work alike, and provides conditions for a process of intellectual maturation. During those three years, Scholion created a unique multi-disciplinary hub for sharing knowledge by peer learning, assisted by physical proximity which enables ongoing dialogue. The interdisciplinary nature of the groups percolates new ideas for individuals and groups alike. As the groups bring together faculty members and doctoral students, cross-generational learning also takes place – to the advantage of veterans and aspiring intellectuals alike. Scholion breaks the traditional structure of the Humanities, and enables doctoral students to work closely with several faculty members, learning the "how to" of doing research, while enriching their social and intellectual capital alike. Faculty members also felt enriched by their joint work with doctoral students. Lastly - and of no lesser importance - is the strong process of socialization for life in the academic world. Ongoing knowledge sharing and cross-generational learning that span over three years seem to affect all participants. It is a powerful mechanism where young scholars are being introduced to academe, acquiring new skills that increase their prospects of attaining an academic position in a dwindling market.

To conclude: The institutional structure of Scholion accounts for the success of the Scholioners. Importantly, we identify a dual movement of (a) training a new generation of scholars for more inclusive scholarly work - work more open to interdisciplinarity, and of (b) slowly generating a change in the mindset of current generations of scholars, leading to a wider change of the institutional culture at the Faculty of Humanities. Scholion as an interdisciplinary center helps reform the academic atmosphere at the Humanities by producing steady undercurrents of ideas by engaging scholars in group work and peer learning. The ideals of peer learning, interdisciplinarity and collaboration, coupled with the socialization of new scholars, all stand at the heart of Scholion. Those factors work together to change the culture of the university toward greater openness, collaboration, and partnership between scholars.

We leave off this report with nine recommendations. For example, we suggest that Scholion should adopt a working definition of interdisciplinarity, and that it should provide groups with a workshop on effective peer learning; organize yearly seminars for Scholion veterans in order to maintain and tighten the scholars' social capital; install a clear code of conduct; and include an organizational consultant who will work closely with the groups.

Tradition in itself is a fine thing if it satisfies the soul, but the perturbed soul

prefers research

Judah Halevi, The Kuzari

Introduction

Scholion, an Interdisciplinary Research Center in the Humanities and Jewish Studies, stands at the center of this evaluation report. Scholion provides an academic haven for elite research groups, each of which is composed of four faculty members and four doctoral students. Each group works jointly for a duration of three years, during which faculty members enjoy a reduction in their teaching obligations. Additionally, Scholion provides postdoctoral fellowships for a select group of scholars, titled 'Mandel Scholars'. Among its stated objectives, Scholion aims to promote interdisciplinary research in the humanities; to serve as a scholastic greenhouse for young scholars; to promote mutual peer learning and the sharing of knowledge while encouraging scholars to make their office their primary work space; and to promote cross-generational collaboration among researchers of the Hebrew University of Jerusalem. The present report focuses on those topics.

In winter 2014 we conducted in-depth, semi-structured, interviews with fourteen faculty members, ten doctoral students, and six postdoctoral scholars, counting a total of thirty. All the interviewees were Scholion members between the years 2002-2013. Additionally, we collected updated curriculum vitaes from twenty-five faculty members, thirty-one doctoral students, and seventeen postdoctoral scholars. They were computerized and analyzed, forming the database for the following quantitative analyses. Since Scholion produced close to one hundred alumni, those response rates are satisfying for both the qualitative and the quantitative parts of this study. The data collected leads us to feel confident about the validity of the study and the conclusions.

We begin this report with a review of literature about theories and previous findings concerning collaboration, peer learning, and academic social capital. We then focus on our quantitative research findings – exposing a highly productive scholarly unit. We then exploit the interviews to explain the nuts and bolts creating this success while addressing the main themes that came up through the analysis. The quantitative study was made by using CoolCite, the qualitative part by using Atlas-ti.

Theoretical Background: Collaboration, Peer Learning, and Social Capital

Since the 19th century, universities have been moving ever more drastically from the role of preservation of knowledge to generating new knowledge. Part of this shift is evidenced by the observation that teaching has become less central for most faculty members, while research has become more important (Kerr 2001). In the USA, state and private universities coexist, yet the system as a whole changed extensively during the 20th century by growing federal research grants and by the land-grant idea. Both research grants manifest the ideal that science should to be harnessed to advance public and national interests. This in turn fed back as faculty members were called to divert their energies from education to research in order to raise money and fulfill their grant obligations (Bok 1986). Kerr sums up this transition in the following words:

The basic reality, for the university, is the widespread recognition that new knowledge is the most important factor in economic and social growth. We are just now perceiving that the university's invisible product, knowledge, may be the most powerful single element in our culture, affecting the rise and fall of professions and even of social classes, of regions and even of nations. Because of this fundamental reality, the university is being called upon to produce knowledge as never before (2001, xii).

Together with increasing student enrollments, the growing corpus of knowledge is among the main contributors to the narrowing of academic specializations. This can be seen in the known phrase that Aristotle, Leibniz, John Stuart Mill, and Thorstein Veblen were the last humanists who have 'known everything'. The rising number of students reflects a societal increase in demand while providing faculty with the opportunity to specialize and develop their niche courses (Damrosch 1995). At the same time, "the increasing breadth and depth of scientific knowledge has resulted in the emergence of a myriad of disciplines or branches of learning, each one requiring many years' study to reach the forefront of research" (Jeffrey 2003, 539). This process led to the creation of new departments and fields that are split into a dense network of subfields and specializations. Furthermore, the increase in the scope of knowledge requires faculty to embark on an ongoing process of lifelong learning, or in Rosovsky's words: "The essence of academic life is the opportunity – indeed, the demand – for continual investment in oneself. It is a unique chance for a lifetime of building and renewing intellectual capital" (1990, 161). The process of specialization and the growing effect of the grant system is not a unique American phenomenon, but a global one, with a strong grasp on the Israeli academy.

As Damrosch (1995) suggests, academic specialization generates the politics and organization of specialization: "to a very large degree, not only research but most activities in the university are carried on by individuals working on their own." (57). As Karl Weich has put it, "linkages among research, service and teaching are presumed to occur within the single individual, a presumption found in few other organizations [...] every other connection that occurs outside a single head is looser, more intermittent, weaker. Multiple actors within universities don't share many variables. And those they do share, are weak" (1984, 16). This tendency to solitary work receives encouragement from what is now being understood as the 'misconception of the lonely scholar'.

Since Goethe's *Faust*, the image of the lonely scholar spending days and nights in his isolated tower in the search of wisdom is imprinted deep into the collective scholastic unconscious. Some

scholarly traditions argue that truly advanced work should be undertaken in isolation and with as little cooperation or assistance from others as possible (Rosovsky 1990). However, though sometimes this claim has been presented as a natural state or mode of existence, in fact it is a choice (Damrosch 1995). This is precisely, Damrosch argues, where "departmental nationalism" (ibid.) and faculty conservatism (Kerr 2001) need to give way to collaboration.

The conservative academic practices in the humanities are challenged by growing collaborative strategies in the natural and the social sciences, where collaboration of scientists in research activities has become the norm (Beaver and Rosen 1979; Sonnenwald 2007; Wray 2002). In terms of collaborative strategies, the humanities still lag behind. Against this background we note efforts by funding agencies, particularly government agencies, to facilitate active research collaboration as part of their funding requirements. This development has not skipped the Israeli academy, which exerts growing pressures on scholars from all fields to adapt themselves and their research projects for collaboration with fellow scholars.

Klenk, Hickey, and MacLellan (2010, 933) provide a detailed account of different forms of scientific collaboration:

When collaborators share the same discipline the collaboration is referred to as intradisciplinary, or disciplinary. When the collaboration involves the integration of knowledge from two or more disciplines it is referred to as interdisciplinary (Palmer 2001; Salter and Hearn 1996). Sometimes the terms multidisciplinary and cross-disciplinary are used interchangeably with interdisciplinary collaboration (Cummings and Kiesler 2005; Jeffrey 2003). However, collaboration that uses knowledge from different disciplines, but does not integrate or synthesize that knowledge, is often referred to as multidisciplinary rather than interdisciplinary (Bruce et al. 2004). Transdisciplinary collaboration refers to the integration of all knowledge relevant to a

particular problem (Sonnenwald 2007), and according to some authors it should integrate the natural sciences, social sciences, and humanities, and involve multiple stakeholders from all aspects of society (Thompson Klein 2004).

This definition of the concept of 'interdisciplinary research' comes close to the classic definition provided by Rossini and Porter (1981), as the two understand it as research in which components are being linked internally and substantively without being subsumed under a supradisciplinary paradigm. Based on those scaffolds, we suggest hereby to understand interdisciplinary as a collaboration leading to the substantive integration of knowledge from two or more disciplines without being subsumed under a supradisciplinary paradigm.

Recent empirical evidence supports the aforementioned pressures by funding agencies and university authorities toward collaborative academic work. A unique study of success stories of top scholars identified three ingredients that the authors pointed out as keys for scholarly success: relationships, usefulness to others, and overcoming challenges. According to the findings, "scholars repeatedly mention the importance of support from not only co-authors, but also more informal relationships with colleagues, friends, and spouses" (Leahey and Cain 2013). These findings buttress the importance of generating social capital among scholars. Given recent trends and pressures, scholars do indeed benefit from participation in research networks and collaborative research (Klenk, Hickey, and MacLellan 2010). Those findings – though not specifically targeting the humanities – give ample support for increasing collaboration amongst scholars. Collaboration seems to produce better research and enhance scholars' abilities, and accordingly, also the wider spread of their work. Studies on scholarly success of classic scholars in the humanities, such as Lamont's (1987) study of Derrida's success, emphasize the importance of adaptability. Randall Collins' (2000) study of great philosophers and their networks highlights mentor/mentee lineages and a scholar's position in the broader field.

Studies have gone beyond collaboration to advocate peer learning, a collaborative form that Scholion adopts. In past decades (cf. Slavin 1985) scholars have highlighted the importance of cooperative learning in schools, but even in higher education this strategy has become one of the most widespread and fruitful areas of theory, research, and practice. With time, it became clear that people working in small groups tend to learn more of what is taught and retain it longer, and that cooperative learning – irrespective of domain – has a significant positive impact on achievements (Johnson, Johnson, and Stanne 2000; Hattie 2009).

The importance of peer learning gains recognition in the pedagogy of research education, namely in supporting doctoral students. Peer learning during doctoral studies plays a dual role: First, in producing knowledgeable scholars, and second, by breaking the lonesomeness involved in this step of scholarly training, and thereby easing the long journey towards academic maturity. The clear benefits of peer learning, concerning which there is strong supporting evidence concerning schoolchildren and undergraduate students, should apply when it comes to doctoral students as well. There is evidence to suggest that learning communities during the doctoral years positively affect both participants' knowledge of scholarly writing and their attitudes towards writing (Parker 2009). Before pondering about the latter, it is advised to appreciate these lines:

Research is a lonely activity, especially when the location is a library rather than a laboratory. Few experiences in our working life can be more isolating than gathering materials for a dissertation deep in the bowels of some large library. No one can help; no human voice is heard; the only constant is that very special smell of decaying books ... Loneliness or isolation is particularly strong for graduate students in the humanities and social sciences because cooperative research is discouraged, especially when writing a dissertation: that is intended to be individual work to exhibit one's own capacities" (Rosovsky 1990, 153–154).

Becoming a researcher takes time and devotion and involves many hours of solitary study and research. Due to its sensitivity, data on doctoral dropout rates is scant, with estimates nearing half of those who start on doctoral studies (Lovitts 2001); in elite universities the estimate rises up to two-thirds (Bowen 1992). Studies which attempted to identify the main causes of doctoral dropout have pointed to the absence of community and the disappointment with learning experiences (Lovitts 2001). Scholars suggest that those problems can be addressed by peer learning, pointing to findings which indicate that group work contributes to a positive graduate experience (Devenish et al. 2009). Those benefits add to the "academic" advantages of peer learning as presented earlier. Additionally, peer learning among doctoral students can contribute and develop a sense of belonging, a community, while establishing a network of scholars (Boud and Lee 2005; Baker and Lattuca 2010). In turn, this is likely to affect positively their future careers and assimilation into the institution. This academic mode of inclusiveness is central, as scholars engaged in collaborative group work develop working habits that affect their entire career (cf. Bourdieu 1988). Collaboration and peer learning constitute strong forces of socialization especially during doctoral training (Delamont, Parry, and Atkinson 1997).

To conclude: Peer learning and interdisciplinary collaboration among scholars lead to positive outcomes. Programs which utilize such frameworks might advance academic units towards the vision set by Damrosch (1995). They could change the separatist culture of the university while leading toward greater openness, collaboration, and partnership between scholars. They can also increase synergy between the university, the community, and society at large, moving the university "Beyond the Ivory Tower" (Bok 1982)

Scholion: Findings and Evaluation

A Strong Team Grows Stronger – Quantitative Analysis

First and foremost, Scholion is home for a strong scholarly community. In assessing its academic merit we used common quantitative evaluation criteria, defined as the number of publications and attained research grants (Geuna and Martin 2003; Hicks 2012). As the charts below suggest, the Scholion community is made up of top, highly prolific scholars. Furthermore, Figures 1-4 show that this group gets stronger over the years (with the young scholars pushing ahead), presenting constant growth in most parameters – total number of scientific publications, number of books published, number of articles published and amount of grants.

Readers should note that all the figures present a looking-backward perspective, counting overall productivity before, during and after participation in Scholion – allowing us to assess change following the Scholion period. Toward this goal, we grouped together the self-reported academic accounts of 73 Scholioners as of mid-2014, and from this perspective we look backwards. This enabled us to understand their longitudinal activity as a group. Relying on the diverse age structure of Scholion members, we assumed natural replacement to take place, with young members slowly replacing older ones. This can lead to a somewhat complex view that 2013 represents the greatest number of members, yet it is more than likely that some who were active in the first years of Scholion are now being more at ease with regard to academic publication (i.e., retired). Therefore, the data should be understood as a good indicator of the general trend of Scholion productivity.

Figure 1 presents overall publication productivity, summing up all types of scientific publications (journal articles, books, chapters in books, etc.). The growth trend indicates that scholarly productivity improves with the years, and we discern in the data a shared transition toward publishing a greater number of journal articles and book chapters. Figure 2, presenting the number of books published by

Scholion members per year, also presents a steady growth trend. It serves to reassure that the quantity does not come at the expense of quality. On average, this group of scholars (total of 79 responders) published 1684 publications between 2002 and 2013, or 140 publications per year, 10% of which are books (often counted as worthy of 5 journal publications). Given the Humanity's "Book-Orientation" — this is a strong indication of academic excellence.

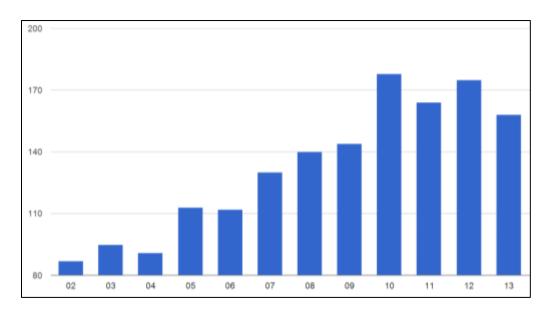


Figure 1: Total number of scientific publications

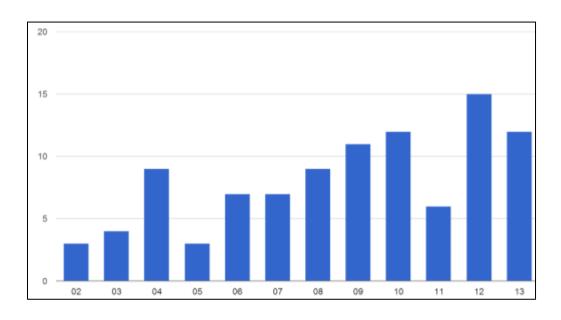


Figure 2:Number of books published

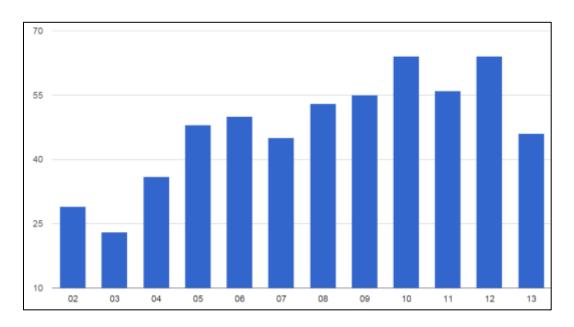


Figure 3: Number of articles published

Figure 4 shows the yearly successes in winning research grants. The importance of applying for research grants is a relatively new development in the Humanities. Against the background of this academic tradition, Figure 4 exhibits positive findings. Notwithstanding the different currencies, the sums attained for research are steady and prove that Scholion members succeed in attaining external research grants. Furthermore, one should bear in mind that it is very unlikely for doctoral students of the Humanities to apply for grants. Hence, the sums in Figure 4 – excluding doctoral students – reflect the attainments of a small group of veteran scholars. As the post-docs and the doctoral students mature – the long-term effect of Scholion should probably increase. Indeed, on average, the sum of grants gained per year is USD 22,031 for faculty members, USD 1,258 for doctoral students and USD 7,244 for postdoctoral scholars.

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¹ Conversion was made to USD. It is also important to note the probability of a bias with this parameter, leading to under-reporting.

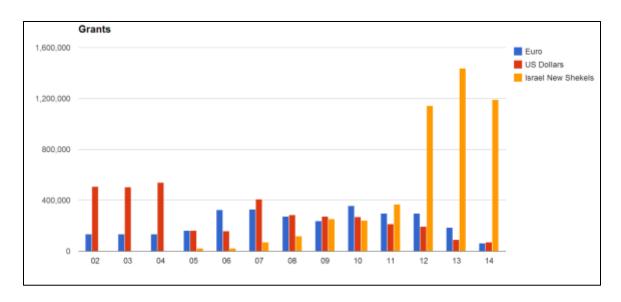


Figure 4: Total Grants gained by Scholion members

Due to our limited ability to engender a control group (comparing an average number of publications or grants in the Faculty of Humanities at the Hebrew University), we used comparable data published by the Israeli Council for Higher Education (2012). Its data reveal that the average number of articles published per year for a faculty member in the Humanities in Israeli universities is 0.6. Further data, referring to 2007-2011, set the number to be a bit higher, with an average of 0.69 articles published yearly by a faculty member in the Humanities (personal communication, The Israeli Council for Higher Education). Referring back to Scholion, the average number of articles published per year is 0.93 for faculty members, 0.33 for doctoral students and 0.91 for postdoctoral scholars. Since doctoral students are only at their initial steps of academic writing and publishing, a sound comparison will concentrate on faculty members and postdoctoral scholars, where both stand higher than the national average. Again, although a solid base for comparison is missing for the following parameter, it is worth noting the remarkably high average publication rate (summing books, articles, book chapters and others) by Scholion members: 1.77 publications per year. Turning to grants gained, the average sum of grant money gained yearly by a faculty member in the Humanities in Israeli universities is USD 8,967 (based on data from 2007-2011; sums smaller than USD 20,000 are excluded; personal communication,

The Israeli Council for Higher Education). While the national average is a bit higher than the average gained by Scholion postdoctoral scholars, it is notably lower than the average gained by Scholion faculty members, who also make a more suitable ground for comparison, allowing to compare faculty members versus faculty member.

All the abovementioned figures present a story of a strong group, dedicated to research and to the spread of knowledge by publication. Importantly, faculty members seem to also be keen to tutor the next generation of researchers. This can be seen by the impressive number of students they advise — master and doctoral students alike — and the trend of growth in that respect (Fig. 5). The numbers are likely to be even higher as there is a tendency to under-report advising that dates back more than five years. As student advising has little financial benefits, Figure 5 may also indicate that Scholion members are highly involved and integrated in their home departments and the Humanities Faculty as a whole.

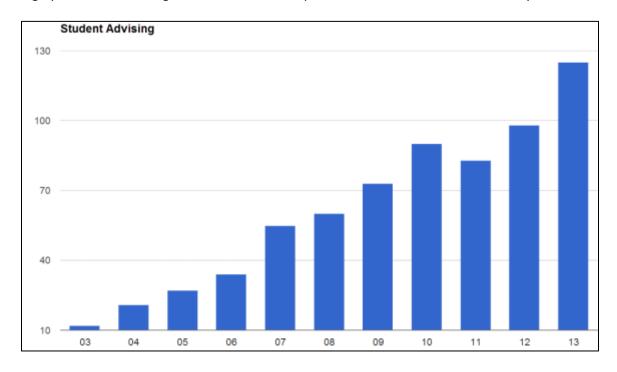


Figure 5: Total numbers of master and doctoral students advised by Scholion members

Whatever measure we choose to analyze, we find that Scholion veterans – doctoral students, post-docs and faculty members – become more productive as a group. It would have been preferable to

have some control group, but since we cannot enjoy a full "lab" for estimating the effects of winning a Scholion grant – we will turn to the qualitative data. This – combined with the theories we covered before – helps explain the growing productivity of Scholion members, using their own explanations and rationales.

Understanding Scholion as an Academic Powerhouse – Qualitative Evidence

To better understand the quantitative success of Scholion we conducted 30 in-depth semi-structured interviews with faculty members (F), doctoral students (D) and postdoctoral scholars (P) - with the first two groups being the lion's share. We traced several themes in the interviews: the effect of time; knowledge sharing; cross-generational learning; and socialization to the academic world. The following sections expand on each.

1. Having Time for Serious Engagement with Research

Interviewees clearly stated that research takes time. Studies begin with an emerging idea, take a while till it is fully developed in the researcher's mind, and require more time for bringing it to its final maturation in written form. This was clearly stated by one of the interviewees:

"This is a benefit – having three years, a process of [intellectual] incubation takes place.

Something that takes place in our dreams, in the daily conversations, slowly things settle

down. In three years something happens, something is being created" (F)

"Scholion is the only place I know where one can finish a project. I could finish my book which I have been working on for years, because I had three years. This is a unique feature, the major benefit of Scholion" (F)

While this is true for all three groups of Scholioners, the three years also carry an important meaning for doctoral students and postdoctoral scholars, namely the financial security that comes with being a member of Scholion. As the vast majority of the scholarship programs in Israel are for a duration of one year, a program that provides financial support for three years is unique and very much appreciated by the doctoral students and postdoctoral scholars alike. Some of them believe that without this support it would not have been able to finish their doctoral dissertations - simply due to lack of financial means and the need to spend time on earning a living. One interviewee expressed it as follows: "For me the most important aspect in Scholion was the time earned by the financial support, as you are being told – 'sit and learn'" (D). Another explained that it was the freedom to delve fully into research, freedom that is enabled by the financial support, group work, and time given by Scholion.

The granting of three years for conducting thorough academic work is unique in international perspective too. The interviewees were asked to compare their experiences in Scholion to other centers of advanced studies they attended. While some respondents compared them positively, referring to the total institutional detachment associated with spending a year in a center of advanced studies overseas, many of them were aware of the benefits Scholion offers. This becomes clear in the following quotes:

"In other centers of advanced studies interesting things did occur, [academic] work and collaborations, but what was created here in our group wasn't only a dialogue. Rather, it advanced real theoretical innovation" (F)

"Because people come there [Herbert D. Katz Center for Advanced Judaic Studies in Philadelphia] for one year and not three, the bonds between the scholars are not as strong [as in Scholion]" (F)

"The time limitation is crucial. A single year is not a long time in the Humanities ... [Here] a team comes and lives together for three years" (F)

"The time element is an important one. One year is not enough to establish a real research group. Even the three years of Scholion are a bit limited" (F)

To sum up, the respondents pointed out that provision of three years for serious academic work provides ample time for delving into personal research and group work alike and provides conditions for a process of intellectual maturation. The scholarship allows doctoral students to concentrate on their study and to maximize the time allotted for their dissertation years. As will be discussed shortly, granting of time for serious scholarly work provides the basis for other qualities of Scholion which allow its scholars to flourish.

2. Creating a Hub for Knowledge Sharing

A major facet that our interviewees talked about was that Scholion created a unique hub or framework for sharing knowledge. This theme was highly dominant in the research groups yet postdoctoral scholars — who work alone - also brought this theme up. Working closely for several years with the intimacy of a research group and in close physical proximity with other scholars made a difference and literally opened the doors for knowledge-sharing among Scholioners. This is very much a result of being inside an academic "greenhouse," in the words of one interviewee. Those testimonies suggest that Scholion provides an atmosphere or framework for intellectual dialogue — an ability to talk freely with group

members, with conversations that began over coffee and ended up leading to the sharing of ideas and opinions. The following quotes are clear:

"A great deal of the process lay in unofficial conversations, entering the offices of others. To be able to follow closely the work of the ones near you ... you are a part of the process they are going through – feels like 'as I know him since he was little'... it is about doing it over time and thoroughly" (F)

"It was an intense study with an exposure to other topics ... many conversations with group members, an ongoing dialogue that was crucial, also with post-doctoral students and members of other groups" (D)

The creation of a hub for scholarly dialogue relates directly to the interdisciplinary nature of Scholion and its use of peer learning as a main strategy. Working together in groups that aim to engage scholars from various disciplines is a rare organizational feature that is not easily found in the Faculty of Humanities. In creating a multi-disciplinary hub, Scholion supports a variety of perspectives and brings into fruition ideas across disciplinary borders. Many of the interviewees expressed this squarely:

"In the Humanities there is a tendency to work by yourself, and even when there is a conference, you come and listen, yet it doesn't really open you up. Here, the joint structure, the joint research proposal, the daily dialogue with colleagues provide the opening of new fields, working in the company of others and the intensive interaction simply do not exist in other places, and this is the special thing and the main contribution [of Scholion]" (F)

"I am grateful for the opportunity to experience it. In the Humanities you work solo ... and here in Scholion you enjoy the togetherness. The gathering with others from

different disciplines, that have similar topics yet different questions, different methods for coping – it is an opportunity for an in-depth disclosure of the research reality of four different disciplines and it was fascinating, to bring four approaches ... it was an enormous intellectual wealth." (F)

"Faculty members all came from different fields, and the other doctoral students too - and it was very fertile. It provided me with surprising perspectives ... they spoke about different motifs and I suddenly came to appreciate similarities and see where fields come close" (D)

"We attempted to build a dialogue society – the idea of schooling and of the academy on the wider perspective – in which knowledge is gained by listening and by engaging in conversation. This is the idea and the beauty in this thing, and the frame that Scholion structures provides an exceptional opportunity" (F)

"One of the problems in academia is that people sit in their offices, disconnected from others. The ideas you have reach no one and you don't know since you haven't spoken about them with anyone. This is something the group stops. It forces you to read other materials, in turn expanding your horizons ... I think it trains scholars to go beyond the 'talk the talk' of their sub-sub-specialization, but to refer to something wider, broader. The groups work against specialization and so produce better scholars" (D)

Exchanging of ideas and the sharing of knowledge is supported by the availability of time. The framework of three years and the commitment to the Center creates fluidity in exchanging ideas. Consequently, new knowledge is much more likely to develop over time – something which does not happen in regular academic contexts and over shorter periods of time. This was attested by some interviewees:

"The interaction, a group made by faculty members and doctoral students, the simple interaction with them was very beneficial and fertile. It made me think about new research directions that I might have not reached otherwise ... Scholion has the advantage with its ability to open the mind to different modes and directions of thinking, methods of analyses ... the experience of a community was the main advantage during those three years ... even my old research project received a new twist because of the use of a new method ... this is not a trivial thing and contributes to my research on a daily basis" (F)

There seems to be a dialogue between the personal work done by every scholar and the group.

This can be seen in the following quotes:

"We spent happy three years together, each busy doing his work, and once a week we met for a group meeting, plus a joint seminar we taught... this was wonderful as the joint work wasn't only in research but also in teaching, which was a new thing. ... For three years we met on a weekly basis, learned and taught... and made the most of the interdisciplinary idea behind Scholion – we contributed and gained." (F)

"I like my research project and I wouldn't like to give it up, but I feel it has more meaning when it's being charged with a social meaning. The interdisciplinarity of research is the main thing, not the preservation of older bodies of knowledge, but how they can be used, one for the benefit of the other instead of evoking antagonism when they meet." (D)

Scholion groups work for three years on a rotating basis. Consequently, every year a new group enters while another departs - making Scholion a host of three groups at a time. The interviewees had positive feedback about this organizational rotation. Some said that the presence of various groups in

the same hub makes Scholion distinct from other centers of advanced studies. As the following quotation suggests, this multiplexity contributes to the special character of Scholion:

"Usually in other centers of advanced study you work as an independent group with no contact with other groups that might be there at the same time, if they exist at all. In Scholion, at any given point there are two other groups ... I attended some meetings of the other groups, listened to their lectures. It serves as a research 'lodge', with the ability to enjoy and get a feeling for a completely outer world. It is impossible to know how it affects, but it expands the mind. This is what Scholion enables, an external fertilization that is not always related to your field, but it enriches your work." (F)

At its best, suggested a few scholars, the dialogic nature of Scholion's hub enables scholars to advance from dialogue into theoretical innovation. This results from the fact that they share their work and studies together:

"In my case, the group helped me to formulate a system of interpretive terms. It assisted me to extract the essence from 40 years of research, as until now I haven't had the right theoretical framework." (F)

One point to bear in mind is the difficulty to define the concept 'interdisciplinary'. Based on the literature review, we suggest to understand 'interdisciplinary' as collaboration leading to substantive integration of knowledge from two or more disciplines without being subsumed under a supradisciplinary paradigm. While collaboration of scholars from different disciplines is clearly evidenced in Scholion, a question remains: What should be counted as integration? The two following quotes present this dilemma from two aspects:

"Yes, it [interdisciplinary work] is very positive and really did work. We were exposed to the state of the art, to what goes on in other disciplines with some important contributions to our work. It's not only the exposure to materials, but to really understanding what is there, what is the status of the research [in other disciplines]. It is a kind of a shortcut as you wouldn't manage to learn it all by yourself even if you tried. True interdisciplinarity is when two things come together at the same time, and to do it alone is nearly impossible ... and when there is a connection among scholars from different disciplines who tell about their work and disciplines - it may take you to an entirely different level" (F)

"If by 'interdisciplinary' you mean the coming together of scholars from different fields, then yes. But to really combine methodologies, literatures, and historical analyses as an example, an integration of this level ... this didn't happen to me in Scholion. It was individual work with exposure to different fields." (F)

Mediating the two perspectives might lie in the work done by group members on their final project. Groups in Scholion usually organize a conference during the third year, with the target to collect papers and publish them in an edited volume. Yet more often than not, editing is done by one or two group members, possibly because this is in the nature of editing work. A faculty member who edited the book for her group spoke about this experience:

"This attempt for interdisciplinary work is worthy of recognition as it is not always possible to achieve in other settings. In the past, we all published in our own field, but none of us ever edited an interdisciplinary project – where all the contributors listened to what have been said for three years and were naturally affected by this type of learning. Having three years allows fertilization, as all are specialists in their fields, and

always want to learn and teach others, so something is being created, which is important and good." (F)

The potential problem is how closely the articles "talk" one with the other, and listening to the ideas of others seems to vary. The dominant tone during the interviews revealed that usually there is a set of articles or book chapters, written by single authors, which are then edited together. Working together for three years is more than likely to affect the authors, and in turn to affect the articles. In this way the content is influenced by the interdisciplinary nature of the groups. The evidence attests, though, that the level of integration within groups varies.

3. Cross-Generational Learning and Social Capital

As we have shown, previous research shows the benefits of mixed-age learning in schools (Pratt 1986; Goodlad and Anderson 1987). Scholars began following James Coleman's dictum, which suggested that "social capital breeds intellectual capital" and that new and cross-disciplinary bridging groups provide the organizational scaffolds for the development of new ideas. Notwithstanding those benefits, universities are highly conservative and individually-structured organizations (Kezar 2005), where the Humanities are the strongest keepers on this scholarly tradition (Kernan 1997; Wray 2002). Hence, the Humanities rarely provide scholars with an enriching environment for creating social capital. This traditional structure highlights the singularity of Scholion as an academic structure. Unlike the Humanities' customary "disconnection" between advisors and graduate students, Scholion enabled the doctoral students to work closely with faculty members, learning the "how to" of doing research. They also enjoyed more direct learning by being active members in a framework of peer learning. The

following examples present faculty-student relationships and cross-generational learning, two elements that transpire in formal and informal settings:

"While the weekly meetings consumed time and required me to prepare, it also carried an advantage as it opened me up to a broader range of topics. Especially being a doctoral student, you concentrate on your very narrow subject, without looking right and left, and precisely because you must look right and left it [working in the group] opens your horizons. At this point, the ability to sit and work together with seniors who come with a broad perspective was an important learning experience in itself." (D)

"The informal meetings, such as at coffee time, can also promote [you]. You start talking informally with other doctoral students, with the post-docs, and with the faculty members. Scholion is unique as it, enables it... the option to connect with seniors, to talk and to ask questions, to have a simple conversation, to ask how they work" (D).

Despite (officially) not taking part of any group, post-doctoral scholars spoke about cross-generational learning too. Some of them appreciated the "fresh mind" of the doctoral students and their tendency to ask questions, and enjoyed the dialogue, believing they as well had gained from it.

Sharing the same building and working in a common academic environment creates a sense of being members of the Scholion "family." This provided participants with an opportunity for engaging in close dialogue with faculty members. One interviewee explained:

"Beyond the physical and the financial conditions, I've been exposed to research – that was the main thing. To hear from a senior lecturer that my article was too complicated, unclear, etc. To receive criticism from experienced scholars, to interact with them ... I

simply went and knocked on their doors asking for their opinion on my work ... something I wouldn't do otherwise." (P)

Somewhat surprisingly, the sense of cross-generational learning was present in both ways - as faculty members also felt enriched by their joint work with doctoral students. Some of them explained that the freshness of researchers who are at the beginning of their career was highly valued and contributed to their group work and to their individual work alike. This becomes clear in the following quotations:

"Their presence in the group contributed much to the whole group, as they came from different fields and it expanded the variety of topics that we discussed in the group. It was also interesting to talk with people situated along different steps in their academic career" (F)

"This time [being a doctoral student] doesn't repeat itself, the people are in a fascinating age, in a fascinating project. These are the people which it's a joy to learn from, people that were able to express their excellence" (F)

Some faculty members described the advantage accrued in Scholion as having an extra set of advisors for their doctoral students. As one scholar said:

"The doctoral students received feedback from many people besides their advisor. They benefited from this personal contact, received reviews and feedback from both faculty members and co-students" (F)

Scholion's organizational structure broadens the range of topics to which doctoral students had access. Working with doctoral students contributed to the faculty members themselves. One interviewee noted that "In advising doctoral students, senior lecturers learn and develop their own

skills". Therefore, she finds advising of doctoral students to be highly beneficial for both sides. A few faculty members went further and explained that joint work with doctoral students is a key element, a unique pedagogical theme that is not to be found elsewhere in the university. One scholar summed it as follows:

"For me the most important thing in Scholion was the multi-age dialogue. This position - where attentiveness and the ability to develop [ideas] in a wide and free fashion, with imagination, together, to respond mutually, to sit together – had something very good in it ... the discussions had this quality in them, and it is very beautiful and inspiring" (F)

However, such a unique group composition, bringing together faculty members and doctoral students, can be misused. Notwithstanding its rarity, we found reports by both faculty members and doctoral students that collaboration failed. One faculty member expressed hard feelings towards a fellow faculty member who misused the presence of the students and attempted to recruit them to work on his project, not realizing that they ought to concentrate on their dissertations. Eventually he and other faculty members in the group intervened, yet it had a negative effect on the group's climate. Similarly, feelings of discrimination, contempt, and estrangement were reported by a few of the doctoral students. It is difficult to determine if the problem was due to seniority or a matter of character. Nevertheless, such negative exceptions should not be taken lightly.

To conclude, the coming together of senior and junior scholars, who study and work side by side for three years, proved to be beneficial for both parties. The institutional setting of Scholion provides ample room for formal contacts, such as in weekly group meetings. But it also generates a climate for developing informal relationships. Ideas were shared and a scholastic atmosphere was in the air all day long. As will be presented below, this contributed to the academic socialization of doctoral students and post-doctoral scholars alike.

4. Socialization into the Academic World

Socialization into the academic world and the building of a homo academicus, the shaping of one's academic habitus, is a mammoth task that should not be taken for granted. In this, the three themes previously discussed are funneled toward an end result. The ongoing knowledge sharing and cross-generational learning over three years seems to affect all participants. It is a powerful mechanism whereby junior scholars are introduced into the academy, acquire new skills, and thus improve their prospects of triumphing in this competitive environment. Moreover, this is where change can be made, if such a change is desired, as the new generation of scholars is introduced to the system in a most profound fashion.

The doctoral students highlight the positive effect of Scholion as an instrument to gain "inside" knowledge on academia, starting from doing research, writing research proposals, and understanding more about the inner politics of academia.

"It is a more comprehensive familiarity with the academic world, obtained throughout working side-by-side researchers – four seniors over a long time – it exposed me like nothing before to the working habits of the faculty members – the assignments, applying for grants. In this regards those three years were priceless." (D)

"It is the access to other researchers and the development of connections. Being a member in the group means being a member in a real work environment, to see how others work and to learn from it" (D)

"Being part of Scholion didn't have a direct effect on my working habits... but it gave me some kind of extra understanding, another level of understanding of what is an

academic truth. The openness to accept other's opinions and not to be threatened by it. There is something in the learning, the daily working routine with the seniors of the group, to see how they work, how they think – it all gave some kind of understanding of the academic world, of the thinking that happens within it. It built my confidence as to what are the norms, the expectations, I felt I can apply a "professor's eye" when reading, how he will read it. This is something that deepens my understanding, built up my confidence with regard to what needs to be." (D)

This theme was very dominant also among the postdoctoral scholars, in spite of not being members in any group, up to the degree that a few claimed that they owe their subsequent academic appointments to their stays in Scholion. Many recognized the importance of the social network they developed during their stay in Scholion, and the two - socialization and networking - are hard to split apart. Such a perspective of insider-outsider was presented by one of the postdoctoral scholars:

"It is hard to isolate the contribution of the program, but I am very happy I entered academia through it and not straight after my PhD. In this way I have seen different people, a variety of fields, I have seen the relationship between people, different disciplines. I saw things of which I made a note to myself that I don't want to adopt them – I don't want to be like that. And I have seen the advantage of an efficient system with good administration. I have seen what provides a good team spirit and positive atmosphere." (P)

"Before I didn't have this interaction with senior scholars and in Scholion I had it. It was there and it sure helped. It opened for me options that I doubt other junior scholars have. Those connections, the direct contact with the senior scholars, is a very efficient tool in the world of networking" (P)

"In other post-doctoral fellowships this is all very minor. Here in Scholion you are based in a junction of the entire faculty and you get to know people from all fields, so there is an exposure and you build connections" (P)

This last point is also valid for faculty members who believe Scholion helped them to enlarge their social network in the Faculty. This might carry a significant meaning for their career, as research shows that one of the key elements for the development of top scholars is their rich professional network (Leahey and Cain 2013).

Some of the faculty members reflected on their own subjective experiences as doctoral students, stressing the lonely journey and the senses of loneliness. They also seem to understand the clear benefits of extra guidance, taking part in group work, and the networking, and understanding that encouraged them to assist the doctoral students in their group. Here may lie the potential of a grassroots change, where faculty members work to generate a change in the way the new generation of scholars receive their training in their first steps toward becoming faculty members themselves. This is because it is in the breaking of the cycle of loneliness, so strongly associated with writing one's dissertation, that lies the potential for the emergence of scholars who take teamwork and interdisciplinarity as the norm.

Recommendations

In formulating our recommendations, we extended our quantitative and qualitative data with the aim to improve an already effective program. In presenting our recommendations we also rely on interviewees' opinions and suggestions. We seek to strengthen good practice and point out areas that deserve further attention.

1. Define Collaboration and Train Participants in Effective Peer Learning

Following the diversity of approaches regarding the nature of collaboration and interdisciplinary work, Scholion is advised to set a standard or a working definition to orient participants towards deep and effective interdisciplinary collaboration. There is a clear gap between institutional settings optimized for collaboration and an interdisciplinary product. In order to help close this gap, it is also advised that Scholion organize a mandatory workshop designed for new groups on effective peer learning. Such training can help close the gap, for with the right tools, and with better understanding of the nature of peer learning, Scholion would be able to come closer to prompting scholars to launch more productive interdisciplinary work.

2. Define a Code of Conduct

It might be wise to tighten supervision over groups, not in terms of their academic freedom, but in terms of expected relationships. An agreed and clear code of conduct should establish healthy working relationships between faculty members and doctoral students; it will present the expectations among group members in a clear manner; and it should state clearly the Center's expectations from group members.

3. Incorporate a Management Consultant

Given that at any given time Scholion is home to three interdisciplinary groups and post-docs, an organizational management consultant might assist Scholion with coaching members and for improving group dynamics. A good consultant might ease potential in-group tensions and help group members to reap the maximal benefit from their time in Scholion. One in-house source for consultancy and advice on effective learning and group dynamics is the Teaching & Learning Center of the The Hebrew University of Jerusalem.

4. Clarify Expectations and Requirements for the Final Outcome

We advise Scholion to improve clarity regarding the final outcome (e.g., an edited book) and creating a hierarchy of time-dependent outcomes. We suggest that this should be done because work on producing the groups' books goes beyond the three years that the groups work together at Scholion. A possible solution is to encourage members to finalize their research in 24-30 months, leaving ample time for final editing and for individual research. Another option is to abandon the idea altogether, making clear that it is the journey, not the final product, that counts.

5. Strengthen the Integration of Postdoctoral Scholars within Scholion

As was demonstrated above, postdoctoral scholars ("Mandel Fellows") benefit from being part of Scholion, yet formally they are not required to take part in the activities of Scholion's research groups. We do not suggest that they should become part of research groups. However, all the scholars in Scholion can benefit from closer work with the postdoctoral fellows. Post-docs should be encouraged to take part in some group meetings, or to organize lectures in which they will present their own work.

Such a platform might engage post-docs on an unofficial basis and thereby boost their intellectual capital.

6. Create Career-Oriented Workshops for Doctoral Students

Some doctoral students suggested that they could have gained from technical advising, such as writing seminars; preparing lectures; writing a CV, etc. In recent years the Hebrew University has introduced more systematic assistance for doctoral students, but Scholion might be able to provide additional and more discipline-focused help to its members.

7. Keep Integrating the 'Scholion Family'

Many of the interviewees expressed their wish to take part in the larger Scholion "family" in the future. As we identified, one of the strong points of Scholion was its positive effect on scholars' social capital. Therefore, it is advised to support this network of scholars and maintain over the long haul. This can be done by organizing yearly seminars, which can combine academic learning, together with presentation of ongoing work, exchange of opinions and the constant tightening of connections among peers and colleagues. It is somewhat similar to inviting scholars to the conferences organized by the groups, yet it can provide more opportunities for social and academic 'getting together', working toward ongoing dialogue and collaboration.

8. Maintain Active Scholarly Database

We suggest that the exercise we conducted for assessing Scholion – namely having clear data about scholarly achievements – should be a standard working procedure. This would require an annual update

of files – a small effort with significant benefits (e.g., creating an updated publications page, searchable by criteria. For one option, see http://www.coolcite.com).

9. Duplicate Scholion to Other Faculties

Scholion proves to be an academic powerhouse, and as can be seen in the final words of this report, its activities have the potential to change the culture of the Faculty of Humanities. This is a much desired change, working toward greater openness, collaboration, and partnership among otherwise lonesome scholars. Therefore, The Hebrew University would be wise to adopt and spread the model presented by Scholion to other faculties (such as the Faculty of Law with the Faculty of Social Science, and the Faculty of Mathematics and Sciences), by establishing similar interdisciplinary centers.

Facing the Future, Concluding Remarks

This report answered questions about the long-term effect of Scholion on participants and attempted to provide insights about its efficacy. Of the 20 post-doctoral scholars who were Mandel Fellows at Scholion between 2002-2013,² nearly all are now appointed as faculty members in different universities. While most of the former doctoral students in Scholion groups are still at beginning stages of their careers and therefore data concerning them are usually in flux, we can report that, as of spring 2014, of 41 doctoral students, 31 have completed their doctorates and, of the other ten, one has submitted, seven expect to submit this year, and two are not expected to complete the degree. As for their employment: 31 are in academia, at various levels (including ten postdocs, three lecturers and one senior lecturer in Israeli universities, and others involved in teaching, research, or in administrative positions in universities and colleges), and others are pursuing other careers.

Furthermore, Figures 6 and 7 provide partial means for assessing generational change, as some of the older faculty members retired, while post-doctoral scholars increase their share in the number of publications. This provides strong testimony for the quality of Scholioners and to the academic change that the Center promotes.

When asked about collaboration done after Scholion, most faculty members replied that they are now more open to new ideas than before, but that the majority of their work is still done on an individual basis. Yet a few stated that they have launched new projects with colleagues, either directly linked to work done in Scholion or because they now feel more comfortable with this type of scholastic

institutes. This indicates that Scholion finalists are indeed from an academically elite group.

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² This is the place to note that also candidates who made it to the final screening ("marathon"), but were not chosen for Mandel Fellowships, appear to be doing well in the academic world. Although name-based search is not the most accurate tool, it became clear that many of them have received positions in a variety of academic

work. Likewise, a few interviewees stated that they applied for research grants together with colleagues.

Here is a possible explanation that one interviewee supplied:

"[Interdisciplinary work] needs to be done in centers like Scholion, which operate outside the framework of the daily work of the departments ... disciplinary work [should be conducted] within the departments, while interdisciplinary centers [should] facilitate joint research." (F)

Change needs time and institutional support. In many respects, this is the great contribution that Scholion has provided to the individual scholars it hosted, and to the Hebrew University as a whole. A dual movement is in place, both (a) training of a new generation of scholars for more inclusive scholarly work - working more openly to incorporate interdisciplinarity in their studies, and (b) slowly generating a change in the mindset of the current generation of scholars, leading to a wider change of institutional culture in the Faculty of Humanities. A change of this caliber is not easily undertaken. In past decades the academic world has experienced strong turbulences, increasing specialization coupled with structural pressures towards collaboration. Scholion as an interdisciplinary center helps reform the academic atmosphere at the Hebrew University, with steady undercurrents and flows of ideas, group work, and reform. The ideal of peer learning, interdisciplinarity and collaboration, and the socialization of new scholars, all standing at the heart of Scholion, are clearly present, working together to change the culture of the university toward greater openness, collaboration, and partnership among scholars, with the added possibility of affecting their relationship with society at large.

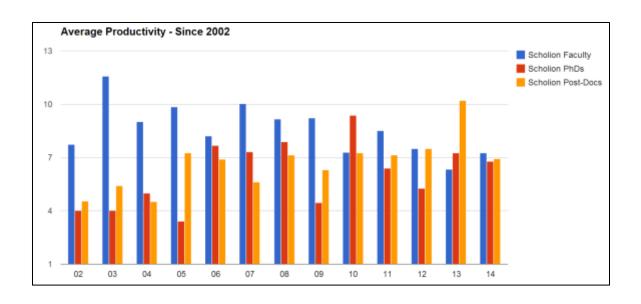


Figure 6: Average number of scientific publications, by categories

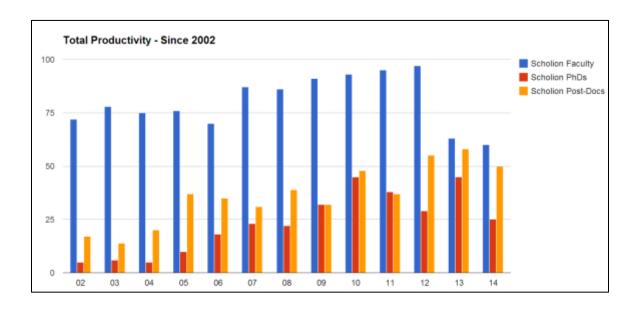


Figure 7: Total number of scientific publications, by categories

Appendix

Here, a number of issues will be present in brief, alongside a few of the strength points of Scholion as they were brought up in the interviews.

- Fig. 6 and Fig. 7 shows the increase over time of scientific productivity (average and total productivity measured by numbers of articles) of the doctoral students and the postdoctoral scholar. However, a point to be taken is the orientation of the publications. Where the faculty members publish mainly in English (70%), both doctoral students and postdoctoral scholars have more publications in Hebrew (50%) than in English (45%). It might result from bad socialization, or perhaps from a tendency to hurry and publish in low-rating journals in Hebrew. As the general orientation of the Israeli academy is outward, it is wise to be aware of this data.
- The physical conditions provided by Scholion were mentioned over and over. They contribute to the positive atmosphere in the center and to a spirit of excellence. There is a possible downside to it, as it discourages scholars from leaving the building and mingling with the rest of the university. The computer facilities and the research budget received high praises just as well, and help the doctoral students to feel welcomed. Moreover, they understood it as a sign of their acceptance on equal terms as the faculty members, and as another building block of their professional identity as scholars.
- The professional work done by the administration of Scholion was recognized and commended.
 The attentiveness to individual needs and request was praised.
- Scholars found it somewhere between difficult to impossible to maintain the work habits
 (working hours, working at the office, etc.) gained in Scholion simply due to the fact that
 Scholion stands high above the facility levels provided by the rest of the Hebrew University. For

the doctoral students in particular it comes as a small wonder as they rarely have an organized office.

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